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ABSTRACT

School and classroom climate is often cited in effective schools research as being important for student achievement. This consumer guide is intended to help educators evaluate their own educational climate by providing reviews and descriptions of the major tests and surveys used to assess climate. Section 2 presents reasons for examining school climate, including its relationship to student achievement, differences in the ways students and teachers view their ambience, the need to analyze hidden messages, growing evidence that change is possible, and climate's usefulness in evaluating curricula. Section 3 differentiates between school and classroom climate, discusses various definitions, and describes four categories of instrument subscales (relationships, personal development, system maintenance and change, and physical environment) based on Moos' psychosocial dimensions. Section 4 discusses ways to measure educational climate, focusing on shared perceptions obtained through paper and pencil surveys. Section 5 briefly mentions state-of-the-art research and discusses validity and usability issues involved with definitions, measurement, importance to student outcomes, and practicality. Because no simple guidelines exist, section 6 provides some standards of comparison when completing a profile of climate variables, and section 7 offers five steps on selecting educational climate measures. Included are 1 table, 38 references, and 4 appendices providing reviews of educational climate instruments, a summary table of instrument characteristics, a list of resources, and a checklist for selecting educational climate measures. (MLH)

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A CONSUMER'S GUIDE

Assessing School and Classroom Climate

by

Judith A. Arter

April 1987

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1. Purpose of This Guide

School and classroom climate is often cited in the research on effective schools as being important for student achievement. This consumer guide is intended to assist educators to evaluate their own educational climate by providing reviews and descriptions of the major tests and surveys which can be used to assess climate.

To make these reviews more understandable we will present some information on the variations in definitions of educational climate and some issues surrounding the assessment of school climate.

To make these reviews more useful we will provide information about how to select an instrument to assess climate, and further resources in assessing climate (e.g. current major researchers and research projects, books and articles outlining issues and concepts in more detail, and training materials).

Sections 2 through 7 of the introduction briefly discuss why one would want to examine educational climate, what educational climate is, ways of measuring educational climate, state-of-the-art in assessing educational climate, and some current findings on what a good educational climate should be like.

Appendix A contains reviews of assessment instruments. Appendix B contains a list of additional resources. Appendix C contains a checklist that can be used to select a measure of educational climate.

2. Why Look At Educational Climate?

There are several reasons why educators may want to systematically look at the climate in their classrooms or schools.

First, school and classroom climate have consistently been shown to be related to student achievement as well as how students behave and feel about school, themselves and others (Fraser, 1986a,b; Bhushan, 1986; Cognetta et al, 1985; Haertel et al, 1981; Saldern, 1986; Anderson, 1982; Chavez, 1984; Anderson and Walberg, 1974). Students' reaction to school may increase the chance that students stay in school, develop a lasting commitment to learning and use the school setting to their advantage (Epstein and McPartland, 1978).

Second, there are often differences in how students and teachers view the climate that surrounds them (Fraser, 1986a; Fisher and Fraser, 1983). Thus, having a "feel" for how any single group perceives the school may not provide one with a clear and comprehensive picture of school climate.

Third, the existence of a climate that most persons (students, teachers and administrators) find satisfying is a reasonable end in itself (Fraser, 1986a; Williamson et al, 1986). Next to the family, the school is one of the most important socializing agencies (Fraser, Walberg and Anderson, 1982). Thus, it is important to analyze what messages we are sending students.

Fourth, there is evidence that classroom and school climate can be changed (Anderson, Walberg and Welch, 1969; Fraser, 1986a).

Finally, climate is useful in evaluating curricula. There is some evidence that climate differentiates between curricula even when achievement does not (Fraser, 1986a). For example, the ICEQ has been used to monitor differences in training programs designed to increase individualization.

The perspective of this Guide is that school climate improvement is not something that is done to fix the school so that it stays fixed. School climate improvement is a long-range process of becoming ever better. In addition, school climate, although important, is not the only possible focus of school improvement. No single factor is associated with effective schools. Rather, effective schools are the result of an integrated set of practices. These include leadership, quality of instruction, parent involvement, using data for decision making and a school climate conducive to learning.

3. What Is Educational Climate?

As with many other concepts in education, there is no unanimous agreement as to exactly what constitutes school or classroom climate. There is some agreement, however, that "climate is a group phenomenon involving something about consensus in perception" (Saldern, 1986), and that it concerns those aspects of the psychological, social and/or physical environment that affect behavior. Some variations in viewpoint concern classroom versus school climate, how broad the definition of climate is, and the specific characteristics that should be included even when definitions are similar.

School Versus Classroom Climate

Some individuals feel that school and classroom climate can be assessed separately and that both have an effect on students and staff (Fraser, 1986a,b). Classroom climate involves relationships between teachers and students or among students. School climate involves relationships between teachers and their colleagues, administrators and relationships in the community. Others feel that the school climate is the sum total of the individual classroom climates (Johnson and Johnson, 1979).

In this Guide we will differentiate between instruments that seem to have more of a classroom focus or more of a school-wide focus, although, as seen in the next section, some instruments solicit both kinds of information.

Breadth of Definition

Some individuals take a narrower view of what contributes to establishing educational climate than others. For example, some feel that educational climate primarily refers to the psychosocial aspects of the environment (Fraser, 1986a,b). Still others expand climate to include everything that takes place in a school-leadership, classroom instruction and management, physical surroundings, the value structures of individuals, as well as relationships (Anderson, 1982; Gottfredson et al, 1986). Such a broad definition can include all components outlined in current research on school effectiveness. Thus, the two become synonymous.

Differences in Definitions

Differences on focus and intent affect content. For example, the ICEQ is designed to look at the climate components associated with individualization, school climate instruments focus more on teacher and administration characteristics, and classroom climate instruments focus more on student components.

However, even within categories of instruments there is a large difference in content.

To illustrate this point, we were initially going to classify subscales across instruments so that it would be easy for consumers to see which instruments measured the same and different things. What we discovered was that the subscale descriptions varied so much that only a few had components in common.

For example, of the nine classroom climate and 12 school climate scales examined in detail there were only four dimensions of classroom environment and one of school environment that were measured by five or more instruments:

Classroom Environment Characteristics

- Student-Teacher Relationships--Favoritism (CEI) and quality of interactions with teachers (QSL, SCI, CES, ICEQ, TAMS, SOI, SLEQ)
- Attitude Toward School--General satisfaction with school (MCI, LEI, QSL, ESES, SCI, CES, SOI, TAMS)
- Student Relationships--How well students get along with each other (CES, CEI, MCI, POI, TAM)
- Democracy--How much students are involved in class decision making (SCI, LEI, CES, ESB, TAMS)

School Environment Characteristics

- Rules for Staff--The extent to which there are rules for staff behavior (LCI, SLEQ, WES, HSCI, WES)

Examples of scales which seemed to appear on only one of the measures are:

Classroom Environment Characteristics

- Opportunism--An environment which is characterized by behavior which adapts to expediency or circumstance.
- Orderliness--Classrooms characterized by caution, seriousness and austerity.

School Environment Characteristics

- Race Relations--How well different ethnic groups get along.
- Student Participation--Range of activities available to students.
- Use of Test Data--The extent that test results are used to modify instruction.

Our Approach to Describing the Content of Instruments

We want to assist educators to find assessment instruments which meet their needs in terms of what areas of school or classroom climate they wish to look at. Because different authors have different definitions of climate, and because they use different terminology even when they are describing the same phenomenon, we take two approaches to describing the content of assessment instruments. First, in our reviews, we report all subscale descriptions as written by the authors. This is so that consumers can make their own decisions about similarities and differences.

The second approach we use in describing content is to classify the various subscales on each instrument into four broad categories which Moos' (1974) proposes describes the dimensions of any social climate, including that of schools and classrooms. In so doing, we are not advocating any particular theoretical approach. Rather we are merely trying to compare the general types of things being measured by each instrument in order to assist consumers. Moos' framework was chosen because many of the instruments are based on Moos' work, the categories appear to be directly relevant to education, the language used is fairly clear and because it generally covers all the areas mentioned in the various instruments reviewed. The three general dimensions are:

Relationships. This dimension covers the intensity and nature of personal relationships within the environment, the extent to which people are involved in the environment and support and help one another, and the degree of free and open expression. This category includes such things as student relationships to each other, student relationships to the teacher, and professional staff relationships to each other.

Personal Development. This dimension covers the basic direction along which personal growth and self enhancement tends to occur. This would include such things as the autonomy of teachers, how much competition is encouraged between students, and the emphasis on academic achievement.

System Maintenance and Change. This dimension involves the extent to which the environment is clear in its expectations, is orderly, maintains control over individuals, and is responsive to change. This category includes such things as clear sets of rules, students knowing the consequences of infractions of the rules, teacher consistency in dealing with infractions, emphasis on behaving in an orderly and polite manner, and how change occurs in rules, policy, curricula, etc.

To this we have added a fourth dimension:

Physical Environment. This dimension assesses the extent to which the physical surroundings contribute to a pleasant work environment. This includes physical comfort and resource availability.

Table 1 shows the way 13 major environment instruments fit into this classification scheme.* The table illustrates the differences in content of school and classroom climate assessment instruments.

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* Many of these were classifications made by the authors themselves. Others were taken from previous reviews of the instruments. Some subscales do not fit neatly into a single category because the content may seem to fall into two.

Table 1

PSYCHOSOCIAL DIMENSIONS CLASSIFIED ACCORDING TO A MODIFIED MOOS DIMENSION SCHEME

Classroom Climate Instruments

INSTRUMENT	RELATIONSHIPS	PERSONAL DEVELOPMENT	SYSTEM MAINTENANCE SYSTEM CHANGE	PHYSICAL ENVIRONMENT
Class Activities Questionnaire (CAQ)	Classroom Climate Student Opinions	Lower Thought Processes Higher Thought Processes	Classroom Focus	
Classroom Environment Index (CEI)	Group Intellectual Life	Achievement Standards Personal Dignity Humanistic Intellectual Climate Science	Orderliness	
Classroom Environment Scale (CES)	Involvement Affiliation Teacher Support	Competition Task Orientation	Innovation Rule Clarity Teacher Control Order of Organization	
Elementary School Environment Survey (ESES)	Morale Alienation Humanism	Autonomy Opportunism		Resources
Individualized Classroom Environment Questionnaire (ICEQ)	Personalization Participation	Independence Investigation	Differentiation	
Learning Environment Inventory (LEI)	Friction Cliquishness Intimacy Apathy Favoritism Satisfaction	Difficulty Speed Competitiveness Diversity	Formality Democracy Goal Direction Disorganization	Material Environment
My Class Inventory (MCI)	Cohesiveness Friction Satisfaction	Competitiveness Difficulty		
Quality of School Life Scale (QSL)	Student Satisfaction Reactions to Teachers	Commitment to Classwork		

PSYCHOSOCIAL DIMENSIONS CLASSIFIED ACCORDING TO A MODIFIED MOOS DIMENSION SCHEME

School Climate Instruments

INSTRUMENT	RELATIONSHIPS	PERSONAL DEVELOPMENT	SYSTEM MAINTENANCE SYSTEM CHANGE	PHYSICAL ENVIRONMENT
High School Climate Inventory (HSCI) (ESI–short form)	Group Social Life Peer Group Dominance	Intellectual Climate Personal Dignity/ Supportiveness Achievement Standards Expressiveness	Orderliness/Control	
Organizational Climate Description Questionnaire (OCDQ)	Espirit Disengagement Consideration Intimacy	Trust Hindrance	Production Emphasis Aloofness	
School Learning Climate Assessment Instrument (SLCAI)		Emphasis on Achievement Expectations of Students	Administrative Leadership Grouping Time for Instruction Use of Test Data	Safe & Orderly Environment
School Learning Environment Questionnaire (SLEQ)	Affiliation Student Supportiveness	Professional Interest Achievement Orientation	Formalization Centralization Innovativeness	Resource Adequacy
Work Environment Scale (WES-1974)	Involvement Peer Cohesion Staff Support	Autonomy Task Orientation Work Pressure	Clarity Control Innovation	Physical Comfort

4. Ways of Measuring Educational Climate

School climate can be assessed through paper and pencil surveys/ opinionnaires, interviews, direct observations, and, to a lesser extent, examining existing records. Most currently available instruments are paper and pencil surveys. The rationale for this encompasses the following arguments (Fraser, 1986a,b; Anderson, 1982; Steele, 1971; Ehman, 1970; Remmers, 1963; Fong, 1976).

1. Many authors define school or classroom climate in terms of "shared perceptions." This definition implies that people's opinions and perceptions are what is of interest. These can be easily obtained through paper and pencil surveys.
2. Perceptual measures have typically been shown to be more related to student affective and cognitive outcomes than the type of things related to climate that can be measured through observation (e.g. percent teacher talk, teacher-student verbal interaction patterns, size of class, etc.).
3. For those variables which can be measured by both observation and self-report of perception, there is some evidence that perception matches reality.
4. There is some evidence that perception is not merely a reflection of the person's personal characteristics and that descriptions of environment can be separated from attitudes.
5. One's behavior is more controlled by the "perceived" environment than by the "real" environment.
6. Paper and pencil measures are more economical.
7. Perceptual measures are based on students' experiences over many lessons, while observational data usually are restricted to a small number of lessons actually observed.

For these reasons, in this Guide we will concentrate on paper and pencil instruments that claim to measure participant perceptions about school and classroom climate. Appendix A lists some studies which have used ethnographic techniques, case studies, and observation of interactions between teachers and students to examine school climate. Appendix B provides references that might assist with developing alternative types of instruments for assessing educational environments.

5. State-of-the-Art in Assessing Educational Climate

Most currently available instruments are paper and pencil surveys of students and/or teachers which solicit their comments on various dimensions of class or school climate. Several of the instruments have been used widely in research studies--for example, the LEI, MCI, ICEQ, OCDQ, and CES. There is an increasing body of research on how school and classroom climates affect achievement and affective outcomes, how student perceptions of the actual classroom environment differ from their stated ideal environment, how

student observations differ from teacher observations, differences between grades and subjects, and whether school climate can be modified (Fraser, 1986b has a good review of these topics).

Even with the current quantity and quality of research in the area there are general validity and usability issues with respect to the instruments used to assess educational climate. The issues are of four types: (a) definitions-- is there an entity called school climate, and if so, how is it defined; (b) measurement-- if it can be defined, can it be measured in a reliable and valid manner; (c) importance-- if it can be measured, does it have an important effect on student outcomes; and (d) practicality-- even if it has an important effect on student outcomes, can it be changed to be better?

Definitions

Table 1 shows that the content of the instruments varies widely. There is only a moderate level of agreement as to what should be on such instruments. This obviously affects the nature of the studies used to validate the instrument and statements about the effects of climate on outcomes. However, there seems to be some consensus that climate refers to a group phenomenon relating to the social and psychological atmosphere of a setting. Lack of common definition is not necessarily a problem--it just means that users need to attend to content so that they obtain the information desired.

Measurement

Even though it is generally agreed that perception is a useful way to obtain information about climate, this does not necessarily imply that the instruments currently available validly capture the perceptions that are important. Issues include: Do respondents know what is being asked for on the instruments? Is one's perception of the environment merely a reflection of his or her personality or is it an independent entity? Do people in the same setting see things the same way? Will people answer honestly? Does perception match up with reality?

There has been a great deal of research on these issues both apart from and during the development of assessment instruments.* In general, it appears that there are instruments currently available that generate information about climate in a reliable and valid manner (Chavez, 1984; Ellet, 1986; Fraser, 1986a,b). However, reliabilities of subtests often appear to be too low to make any educationally important decisions about individual students or teachers. The reliabilities of subtests are satisfactory for study of the perceptions of groups. Total score reliabilities, however, tend to be better and often can be used to look at individuals.

Importance

Although there appears to be consistent relationships between climate and outcomes (Haertel et al, 1981), the exact nature of the relationships are yet to be defined. That is, different subtests on different instruments relate to different achievement and affective outcomes. One cannot yet say that increasing scores on instrument X will always increase student reading scores. Current results are more like "high scores on the participation scale of the

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* Appendix D has information on the types of validity studies that should ideally be done on these instruments. Our reviews of instruments considered all of these.

CES seem to be related to increased student leisure interest in science." There is general evidence and tempting leads, but no one-to-one relationship between aspects of the environment and effects on student outcomes.

Fraser (1986a,b) also notes that most past research on the relationships between climate and outcomes is corelational--aspect A of the climate appears to be related to aspect B of outcomes. There is a need for more information on causation--where classroom or school environments are deliberately changed in certain ways to check the effect of such changes on student outcomes. The implication of this is that there is a good deal of evidence that climate affects outcomes, but the precise cause and effect relationships have not yet been determined.

Practicality

In general, the instruments are quick to give and easy to score. However, there are some deficiencies when it come to interpretation and use. There is no easily read summary of the relationships found so far. One has to dig through the research literature to find such information. Thus, it can be difficult for practitioners to know what to look at, what difference scores of various sizes have on various outcomes, and what to do about it. (Several recent reviews of relationships between climate factors and outcomes are mentioned in Appendix B. In addition, the next section attempts to summarize some major points in these reviews.)

In a similar vein, there is typically only brief assistance on how to interpret and use results in the test manuals themselves, although some are better than others. For example, few have norms. Those that do base their "norms" on the research sample of the instrument which are often small, represent only a few grade levels and are regionally located. Those instruments that do provide assistance with interpretation either list research findings regarding the instrument or only emphasize profiling and comparing the opinions of various parties. There is only scattered help on what aspects of climate are most important and what to do about it. Fraser (1986b) probably presents the best current summary of what is important and what to do about it. We recommend that if you get an instrument, also get a hold of research summaries surrounding it. (We have tried to list sources of such information in the reviews.)

Finally, most of the instruments that have better documented technical characteristics appear to have been developed for research purposes more than for school self-examination. This means that packaging is not "slick," scoring must be handled at the local level, and knowledge on the part of users about test use and interpretation is assumed. On the other hand, instruments developed primarily for self-use tend to be much better in terms of how to use the results but are almost totally lacking in documentation of validity and reliability (e.g., Fox et al, 1966, 1973).

In summary, several instruments look quite good and many appear promising. They are evolving and will continue to be improved with ongoing research. There will be continuing improvements in content, interpretation and use. Hopefully there will be an improvement in packaging instruments for use by schools.

6. Standards of Comparison

Because of the issues described above, there are no simple guidelines for a district to use in order to compare their profile of climate variables to some ideal profile. The lack of standards means that one doesn't know what profile is best. Based on some current reviews of research (Fraser, 1986a,b; Anderson, 1982; Haertel, et. al., 1981; Johnson & Johnson, 1979), the following provide a little assistance in this area.

1. In combining results from 12 studies (Haertel et al, 1981), the authors found that "better achievement on a variety of outcome measures was consistently found in classes perceived as having greater Cohesiveness, Satisfaction and Goal Direction, and less Disorganization and Friction," (Fraser, 1986, p. 14). (For definitions of these dimensions see the MCI or LEI instrument descriptions in Appendix A.) The author acknowledges however, that the nature of this relationship varies by subscale and outcome measure--not all scales are related to all kinds of outcomes.

2. There is some evidence that being in a classroom having one's preferred climate improves student outcomes. Fraser points out, however, that "it cannot be assumed that an individual student's achievement would be improved by moving him or her to a classroom which matched his/her preferences. Rather, the practical implication of these findings for teachers is that class achievement of certain outcomes might be enhanced by attempting to change the actual classroom environment in ways which make it more congruent with that preferred by the class" (Fraser, 1986, p. 22). This finding would lend credence to surveying students for both "actual" and "preferred" climates and comparing the two.

3. Anderson (1982) notes that the following seem to be related to achievement--teacher morale, student morale/alienation, teacher-administration rapport, teacher collegiality; staff participation and leadership in decision-making, teacher-student relationships, students having a role in decision-making, the number of opportunities students have to participate in activities and relate to each other, teacher commitment to improving student achievement, peer emphasis on academics, cooperation rather than competition between students in the classroom, frequent and public rewards and praise, and consistency in rewards and punishments.

4. There has been a great deal of research on the relative effectiveness of cooperative, competitive and individualistic goal structures (Fraser, 1986b, p. 108). In general, cooperative learning is more effective than the other two. Cooperation is most effective when there are group rewards but individual accountability (i.e., students produce individual work, but the sum total of the individual work is rewarded). "It appears that working with others to achieve a group goal creates peer norms supporting learning and these increase student motivation to achieve and help one another." (Fraser, p. 109).

5. Fraser (1986b, p. 119) also notes, "numerous past studies have revealed the consistently positive influence of classroom environment dimensions such as cohesiveness, goal direction and democracy."

Again, however, it has to be pointed out that the type of generalizations presented above have to be dug out of the research literature. There is a relative lack of this type of assistance in the test manuals themselves. In addition, a note of caution is required. The above represent general findings across many studies. As with any complex social construct, there is no guarantee that these findings will apply to any single individual or group. There is some evidence that what is best may vary depending on the type of group.

7. How To Select A Measure Of Educational Climate

Step 1--Decide Why You Want To Gather Information On Educational Climate

Such information can be used for all of the following purposes:

a. To improve student achievement.

b. To change student affective response to the school and/or learning such as attitude toward school, self-concept, motivation to learn, etc.

c. To compare the climate in classrooms of various grades, subjects, and types of students.

d. To evaluate curriculum in terms of the climate produced.

e. To compare differences between student and teacher perceptions of climate.

f. To change the climate perceived by participants to be more like the climate they prefer.

In some of these uses the climate measure is used as a means to another end such as changing climate to improve achievement. In other of these uses, the climate measure is used as an end in itself. That is, all other things being equal, we should be in enjoyable environments.

The desired use will have an impact on what instrument is chosen because some instruments are valid for some of these uses and others are not.

Step 2--Decide What To Look At

Before one can select a measure of climate, a decision has to be made about what aspects of climate will be looked at. As seen previously, definitions of educational climate vary and not all aspects may be of local interest. As seen in Section 3, assessment instruments vary according to whether they primarily look at classroom or school climate, and within classroom or school climate what specifically is included. If the use is to mediate student outcomes (affective or achievement) then an instrument needs to be found which has been demonstrated to predict these outcomes. There is less leeway in deciding on content. If the use is more descriptive, then there is more leeway in deciding what content to cover. The discussion in Sections 3 and 6 (plus the descriptions of the content of individual instruments themselves) may help to guide the decision of what to assess.

Step 3--Decide How To Best Gather This Information

We are assuming that most people will choose to assess climate using a survey rather than case studies, observation of interactions in the classroom or naturalistic enquiry. As we have seen, there is theoretical and practical support for this approach. Fraser (1986b) concludes, however, that although results from various approaches corroborate each other, each provides its own type of detail. Appendix A has references to consult if an alternative to paper and pencil assessment is considered.

The other decision is from whom information will be gathered. For classroom climate, information should probably be gathered from both students and teachers. For school climate information should be gathered from teachers, administrators, and sometimes students.

Step 4--Obtain Instruments To Review

The descriptions of instruments in Appendix A will help guide you in choosing instruments with the best potential of meeting your needs. However, you should still compare several. If none of these looks like what you want, you may need to develop your own. Some guidance for this is included in Appendix B.

Step 5--Review Instruments For Final Choice

A checklist is provided in Appendix C to assist you to review the instruments in more detail. This checklist covers content, reliability, validity and usefulness.

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APPENDIX A

Reviews of Educational Climate Assessment Instruments

There are three types of reviews in this Appendix. The most widely used instruments and/or those commercially available are summarized in detail. These summaries have been reviewed by the authors of the instruments and are organized by whether they are intended to primarily measure school or classroom climate. Less frequently used instruments are described more briefly. Finally, lengthier instruments having educational climate as one component are listed as are studies using naturalistic or case study approaches in studying climate.

CLASSROOM CLIMATE INSTRUMENTS

Title of Instrument: Class Activities Questionnaire (CAQ-1982)

Author(s): Joe M. Steele

Institution of Author(s): American College Testing Program, Iowa City, Iowa 52243.

Test Description/Intended Purposes: The CAQ is an opinionnaire administered to both students and teachers to provide a measure of the instructional climate, both cognitive and affective, in the classroom. Cognitive climate refers to the level of cognitive activities stressed in the class, according to Bloom's Taxonomy. It is designed for grades 6 and above and is primarily intended to compare students' perceptions of what occurs in the classroom to the teacher's stated intentions.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Classroom Climate	Lower Thought-Processes	Classroom Focus	
Student Opinions	Higher Thought-Processes		

Author's Description of Subtests:

Lower Thought Processes (Memory, Translation and Interpretation): Activities calling for recall/recognition, paraphrasing, recognition of relationships and seeing the implications of information.

Higher Thought Processes (Application, Analysis, Synthesis, Evaluation): Activities calling for selection of appropriate methods, recognition of structure, generation of new ideas and development and application of a set of standards for judging worth.

Classroom Focus (Discussion, Test Stress, Lecture): Opportunity for involvement in instruction, pressure to produce teacher-selected answers for a grade, and teacher as information-giver with a passive, listening role for students.

Classroom Climate (Enthusiasm, Independence, Divergence, Humor, Feelings Valued, Ideas Valued, Teacher-Talk, Homework): Student involvement in class activities, encouragement of student initiative, acceptance of many viewpoints and solutions to problems, allowance for joking and laughter in the classroom, the individual's personal ideas and feelings are valued, students enjoy ideas studied in class, proportion of time consumed by teacher-talk, and weekly amount of homework.

Student Opinions (Qualities, Deficiencies): Open-ended student statements of the best things about the class and the things that need changing.

Reliability: Since the purpose of the instrument is to get group concensus on the dimensions of classroom environment, the authors looked at reliability in terms of concensus within classes versus differences across classes. The resulting interclass reliabilities (based on a sample of 3,138 grade 6-12 students around 1970) fall between .76

and .88 for the four major dimensions of the test. Reliability estimates for the 16 factors range from .58-.94 with only five below .75. Test-retest reliabilities ranged from .59 to .91 for the four major dimensions. These are acceptable.

Validity: A review of the literature was conducted to find features of instructional climate that would be shared by a diverse range of classes and would be educationally meaningful. This resulted in two areas-- cognitive and affective. The cognitive items are based on Bloom's Taxonomy. Items were reviewed by educators and other judges familiar with Bloom's Taxonomy to achieve consensus that items matched cognitive levels. In the affective area items are not based on a theoretical model, but rather on "consensus regarding classroom climate dimensions relevant to an instructional climate conducive to learning." Items were reviewed by educators. Students were interviewed to make sure that they understood what was being asked. There was also a fair amount of work to substantiate construct validity. There is some evidence to support the factor structure of the instrument. The authors also examined how well student responses to certain items matched up to classroom observation of the same climate aspect, such as percentage of teacher-talk. There is no evidence relating these dimensions to student outcomes.

Usability: The CAQ is a 30-item paper/pencil questionnaire. Items 1-27 ask about cognitive and affective emphasis in the classroom. Items 28-30 allow the student to describe in their own words what they perceive to be the strengths and weaknesses of the class. Teachers also complete the questionnaire--once to indicate what they intend to emphasize in a classroom and a second time to indicate what they predict students will say about the classroom. The questionnaire takes approximately 20 minutes to complete. The instruments can be computer scored by the publisher. There is some information provided on how to interpret results, and some standards of comparison are provided. There are no norms. The materials are professionally packaged.

Supplemental Materials: A manual for administration contains directions, suggestions for interpreting results, and technical information is provided.

Distribution/Availability: Creative Learning Press, Box 320, Mansfield Center, Connecticut 06250.

Comments: This is based on research that shows that students, as groups, can be accurate observers of classroom interactions. The author emphasizes a decision-making procedure based on clear-cut concensus. This procedure combined with the reliability of the instrument makes the procedure justifiable. The major shortcoming of the instrument is its lack of evidence that scores predict student outcomes. This could be a problem if the user wants to use a climate instrument to measure aspects of climate related to outcomes. If the use is to make people's perceptions more congruent then it is not as much of a problem. A review in Buros (9th edition) agrees that a problem is lack of evidence relating to student outcomes, and states that until this is available, the LEI, LES and CES may be better to use because of the accumulation of research based on them. Dr. Steele is presently developing a form for the college level with the same six cognitive levels of this version of the CAQ.

The author notes that the CAQ can also be used for program evaluation to provide descriptions of patterns of emphasis across classrooms, and to characterize the instructional climate of a content area, a school, or a special program

Title of Instrument: Classroom Environment Index (CEI-1975)

Author(s): George Stern and Associates

Institution of Author(s): Syracuse University

Test Description/Intended Purposes: The CEI is intended to measure the psychological environment of a classroom as perceived by students. It is normally used for grades 5-12, but can have some application to certain college classes.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Group Intellectual Life	Achievement Standards	Orderliness	
	Personal Dignity		
	Humanistic Intellectual Climate		
	Science		

Author's Description of Subtests:

Humanistic Intellectual Climate: This scale includes aspects of achievement together with elements of contemplation in social concern.

Group Intellectual Life: This scale includes aspects of intellectuality, reflectiveness, objective thinking and practicality.

Achievement Standards: This is a measure of striving for success, accompanied by high levels of activity and effort.

Personal Dignity: This scale indicates individual responsibility and personal autonomy. It is characterized by tolerance, self-confidence and friendliness.

Orderliness: Classrooms that score high on this factor would be characterized by caution, seriousness, and austerity.

Science: A high score on this factor involves an interest in the natural sciences, together with aspects associated with sexuality and egotism.

Reliability: Internal consistency reliabilities of the six subscales ranged from .68 to .84 with four being above .80. This is good for this type of measure. The size and composition of the sample on which this is based is not, however, provided in the manual.

Validity: Based on the needs press paradigm of Murray (1938), the CEI was an adaptation of Stern school climate measures for use in assessing classroom climate. A subsequent study lends support that the CEI differentiates between classrooms, subjects, grades and educational levels. The 30 original elements on the instrument were grouped into six dimensions of environment using factor analytic techniques. There is no evidence provided of the relationship of the CEI to student outcomes.

Usability: The CEI is a 300-item paper/pencil, true/false inventory. It can be split into two 150-item parts and administered independently to different respondents in one class period. It takes approximately 40 minutes to administer. Scoring is available from the source listed in Availability below. Hand scoring appears difficult (even with scoring overlays). Means and standard deviations are provided for comparison purposes (the sample on which these are based is not specified). Standard scores can be computed. There is no evidence that the procedure they suggest for converting to percentiles is justified. There is no other help with interpretation and use. The instruments are attractively packaged although the manual is not.

Supplemental Materials: Technical manual containing a brief description of the scales, instructions for administration, scoring key, norms and references. Scoring overlays are available at extra cost.

Distribution/Availability: Evaluation and Research Associates, P.O. Box 6503, Teall Station, Syracuse, New York 13217, (315)685-5757.

Comments: This is part of a series of instruments developed by Stern (and others). The instruments include those which assess both the needs (Stern Activities Index) and the press (OCI, CEI, HSCI, ESI, CCI) in Murray's needs press paradigm. Needs refer to individuals and press refers to demands of the environment. The scales are set up so that press scales can be directly related to the needs scales.

In general, materials accompanying the instruments are skimpy. The series of instruments of which the HSCI and ESI are a part is intriguing, but without more information they would be difficult to use. A review in Anderson (1982) appears supportive of the instruments and cites a little research using them. More information about the instruments is available in Stern (1970).

Title of Instrument: Classroom Environment Scale (CES-1974).

Author(s): Rudolf H. Moos and Edison J. Trickett.

Institution of Author(s): Social Ecology Laboratory, Dept. of Psychiatry, Stanford University and Veterans Administration Medical Center, Palo Alto, CA; Dept. of Psychology, University of Maryland, College Park, MD (respectively).

Test Description/Intended Purposes: The CES assesses student perceptions of the learning environment of junior and senior high classrooms. It is recommended for use in grades 7-12.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Involvement	Competition	Innovation	
Affiliation	Task Orientation	Rule Clarity	
Teacher Support		Teacher Control	
		Order & Organization	

Author's Description of Subtests:

Involvement: The extent to which the students have attentive interest in class activities, participate in discussions, do additional work and enjoy the class.

Affiliation: The extent to which students help each other, get to know each other easily and enjoy working together.

Teacher Support: The extent to which the teacher helps, befriends, trusts and is interested in students.

Task Orientation: The extent to which it is important to complete the activities that have been planned and to stay on the subject matter.

Competition: The extent to which students compete with each other for grades and recognition.

Order and Organization: The emphasis on students' behaving in an orderly, quiet and polite manner, and the overall organization of classroom activities.

Rule Clarity: The emphasis on clear rules, on students knowing the consequences for breaking rules, and on the teacher dealing consistently with students who break rules.

Teacher Control: The extent to which rules are enforced and rule infractions are punished.

Innovation: The extent to which the teacher plans new, unusual and varying activities and techniques, and encourages students to contribute to classroom planning and to think creatively.

Reliability: Originally (in 1974), reliability on the real form was calculated using a sample of 465 high school students in 22 classes in the U.S. Class reliabilities for the subscales ranged from .67 to .86 with six of nine .80 or above. A later validation study of about 1,100 junior high students in Australia calculated individual student and class reliabilities for the real and ideal forms, and teacher reliabilities for the real form. Reliabilities were in the moderate range of .51-.90 with a median (based on 36 reliabilities) of .69. This seems somewhat low. Teacher reliabilities ranged from .57 to .77.

Validity: Development was based on Moos' dimensions characterizing all psychosocial environments. Ninety final items were selected based on item tryouts and their ability to discriminate between perceptions of groups of students in different classrooms. Original validation information was provided only on Form R. A validation study (Fisher & Fraser, 1983) attempted to add to previous validity studies. Both R and I forms were examined. This study provided some evidence for the effect of CES climate variables on student outcomes and that student outcomes depend somewhat on the correspondence between the students' perception of the actual climate and their statements about the climate they perceive as ideal. This instrument has been used extensively in research.

Usability: There are Real, Ideal and Expectations Forms. The Real (R) Form measures current perceptions, the Ideal (I) Form measures student preferred environment and the Expectations (E) form measures what students expect the environment they are about to enter will be like. Forms I and E are not in published form but can be reproduced, with permission from the author, from the manual.

There are 90 true-false items on each form which take approximately 20 to 30 minutes each to complete. There is also a short form and separate form to measure teacher perceptions of the real classroom climate. Means and standard deviations for the validation sample are provided in ERIC 228 296 and norms are available in the 1974 manual. Interpretation in the manual emphasizes profiling and comparison between teachers and students. More detail on how profiles relate to student outcomes is available in the voluminous research base on this instrument, but has to be "dug for" by the user. All scoring is done locally. Packaging is attractive for the R form.

Supplemental Materials: The publisher provides: The Overview of Social Climate Scales presents the conceptual background for this and related instruments developed by Moos; A test manual includes descriptions of the scales, statistical information, administration and interpretation of results; Bibliographies of research using the CES; separate answer sheets and scoring key. There is also a 36-item short form of the CES available in Fraser (1986b).

Distribution/Availability: Consulting Psychologists Press, 577 College Avenue, Palo Alto, CA 94306. ERIC ED 228 296 provides a version of the CES modified based on the results of a 1983 validity study by Fraser and Fisher. The instrument is also available in Fraser (1986b).

Comments: It appears that the CES was developed mainly for research purposes and has been used extensively since. There is little help with interpretion and use of results in the packaged materials provided by the publisher. But since the instrument has been used in a fair number of studies, districts could find the associated studies to aid in interpreting results. (There is a summary of such studies in Fraser 1986b). Two reviews in Buros (9th edition) noted the potential of the instrument but also noted lack of help in interpretation. The instrument was developed based on the view that school climate should be based on a consensus of individuals characterizing their environment. The author recommends its use for describing how participants see their environment, comparing perceptions, evaluating environmental change examining how environment affects student outcomes, use by a outside observer, and moving individuals to settings more congruent with their preferences. There is little evidence provided for the validity of the last two uses. It seems, however, to be generally accepted as one of the better tools.

Title of Instrument: Elementary School Environment Survey (ESES-1967)

Author(s): Robert L. Sinclair and David Sadker

Institution of Author(s): University of Massachusetts and the American University, Washington D.C. (respectively).

Test Description/Intended Purposes: The ESES is intended to measure young students' perceptions of the physical, social and intellectual conditions and happenings in schools.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Morale	Autonomy		Resources
Alienation	Opportunism		
Humanism			

Author's Description of Subtests:

Alienation: This scale measures the feeling of estrangement between a child and the school.

Humanism: This scale measures the atmosphere of concern with the value and integrity of the individual.

Autonomy: This scale measures student independence and self-direction. It also helps determine if the lines of communication between students and teachers are open.

Morale: This scale measures the cheerfulness and good feelings felt by students toward the school.

Opportunism: This scale reflects an environment which is characterized by behavior which adapts to expediency or circumstance.

Resources: This scale reflects quality and availability of optional learning resources.

Reliability: None provided

Validity: The ESES was adapted for elementary school use from the CUES, developed for use in colleges based on the needs-press concept of Murray (1938). The instrument was administered to over 5,000 5th and 6th grade students in Massachusetts. Based on a factor analysis of these data, items were placed onto the six subscales. Several subsequent studies showed that the ESES distinguished between sites. There is no information about the relationship to student outcomes.

Usability: This survey has 42 true/false questions. Each of the six dimensions are measured by seven consecutive items on the questionnaire. Recommended age level is 9-11 years. Sadker et al (1973) provides assistance with standards--how the ideal school would look on each subscale (no empirical support is, however, provided for these statements). The instrument can be obtained in booklet form--which is usable but not "slick."

Supplemental Materials: Instructions on administration and scoring.

Distribution/Availability: David Sadker, School of Education, The American University, Washington D.C. 20016.

Comments: There is some confusion in the materials sent by the author. Sadker et al (1973) provides information on an 80-item form. The instrument sent has 42 items. Also the ESES is described in two other sources as having 100 items in five dimensions--different from those listed above. This makes tracing development and validation difficult.

The author notes that a teacher form of the instrument is available to collect teacher perceptions of the same dimensions for comparison to student perceptions.

Title of Instrument: Individualized Classroom Environment Questionnaire (ICEQ-1979)

Author(s): Barry J. Fraser

Institution of Author(s): Western Australian Institute of Technology, Bentley, Western Australia 6102.

Test Description/Intended Purposes: The ICEQ is intended to measure student and teacher perceptions of actual and preferred classroom learning environments along dimensions which differentiate individualized classrooms from conventional ones. It is intended for use in grades 7-12.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Personalization	Independence	Differentiation	
Participation	Investigation		

Author's Description of Subtests:

Personalization: The emphasis on opportunities for individual students to interact with the teacher and on concern for the personal welfare and social growth of the individual.

Participation: The extent to which students are encouraged to participate rather than be passive listeners.

Independence: The extent to which students are allowed to make decisions and have control over their own learning and behavior.

Investigation: The emphasis on the skills and processes of inquiry and their use in problem-solving and investigation.

Differentiation: The emphasis on the selective treatment of students on the basis of ability, learning style, interests, and rate of working.

Reliability: Reliabilities are based on about 1,800 Australian students in grades 7-9. Internal consistency reliabilities for the actual and preferred forms are similar and range from .67 to .76. For teachers, the reliabilities ranged from .74 to .90. Test-retest reliability for a sample of 105 grade 7-9 students on the actual form (three weeks apart) ranged from .67 to .83.

Reliabilities for student groups and teachers are acceptable. Those for individual students are a little low for the instrument to be used for any educationally important decisions about individual students.

Validity: Dimensions were chosen to characterize the classroom learning environment described in individualized curriculum materials and in the literature of individualized education. Teachers and students were interviewed about the saliency of items and dimensions. Final items were selected based on conventional item statistics and independence of subtests.

Data on actual and preferred use with students is based on over 1,800 grade 7-9 students in Australia. Data on actual and preferred use with teachers is based on fewer than 100 teachers in Australia. The instrument seems to differentiate between classrooms. Subsequent research has provided evidence for the relationship between ICEQ dimensions and student outcomes, that perceptions of individualization relate to actual attempts to improve individualization, and that there is a relationship between preferred individualization and achievement in that setting.

Usability: The ICEQ's long form contains 50 items. Each item is responded to on a five-point scale with the alternatives ranging from almost never to very often. The scoring direction is reversed for many items. The instrument has two forms--Actual (student perceptions of the actual environment), and Preferred (student opinion as to what the environment should be like). The forms can also be used with teachers. The ICEQ is untimed but typically takes 15-30 minutes for each form.

Scoring must be done locally.

Averages and standard deviations for students, classes and teachers in the sample for each subtest is presented. There is some guidance on how to profile results and compare them for actual versus preferred and teacher versus student. There is also a little guidance on how to use the results to alter the climate perceptions of students.

The instruments must be copied from a "Test Master" set supplied with the manual from the author.

Supplemental Materials: A manual (1986) including instrument development, administration, review of research using the instrument and copies of the actual and preferred long and short forms.

Distribution/Availability: See address above. It is also available from ERIC ED 228 296 and in Fraser (1986b).

Comments: This instrument was intended to fill a gap in existing instruments--dimensions important in open or individualized classrooms. This instrument has been used quite a bit in research. It appears to be one of the better instruments. The author recommends the use of the short form only for looking at classes, not individual students. A summary of research using the ICEQ is available in Fraser (1986b).

Title of Instrument: Learning Environment Inventory (LEI-1982), 3rd Version.

Author(s): Barry J. Fraser, Gary J. Andersen, and Herbert J. Walberg.

Institution of Author(s): Western Australian Institute of Technology, Perth; McGill University, Montreal; University of Illinois, Chicago (respectively).

Test Description/Intended Purposes: The LEI is intended to measure student perceptions of 15 dimensions of the social climate of high school classrooms. It could be used with students aged 12 to adult (grades 7-12).

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Friction	Difficulty	Formality	Material-Environment
Cliqueness	Speed	Democracy	
Cohesiveness	Competitiveness	Goal Direction	
Favoritism	Diversity	Disorganization	
Satisfaction			
Apathy			

Author's Description of Subtests:

Cohesiveness: Extent to which students, know, help and are friendly toward each other.

Diversity: Extent to which differences in students' interests exist and are provided for.

Formality: Extent to which behavior within the class is guided by formal rules.

Speed: Extent to which class work is covered quickly.

Material Environment: Availability of adequate books, equipment, space, and lighting.

Friction: Amount of tension and quarreling among students.

Goal Direction: Degree of goal clarity in the class.

Favoritism: Extent to which the teacher treats certain students more favorably than others.

Difficulty: Extent to which students find difficulty with the work of the class.

Apathy: Extent to which students feel no affinity with the class activities.

Democracy: Extent to which students share equally in decision-making related to the class.

Cliqueness: Extent to which students refuse to mix with the rest of the class.

Satisfaction: Extent of enjoyment of class work.

Disorganization: Extent to which classroom activities are confusing and poorly organized.

Competitiveness: Emphasis on students competing with each other.

Reliability: The internal consistency reliabilities on each subscale for individual students range from .54 to .85 (N=1,048). Interclass correlations for groups range from .54 to .92 (N=83). Test-retest reliabilities range from .43 to .73 (N=139). This information is good in that it provides correlations for each suggested use. But data are old and some subscale reliabilities may be too low for profiling individual students.

Validity: The authors tried to choose climate dimensions which were good predictors of learning, were relevant to theory or those which seemed to be relevant. A panel of judges classified items to ensure agreement on what dimension each item measured. The author did traditional item analysis and correlations between subtests. The manual cites a number of studies done between 1969 and 1981 on the relationship between LEI scores and achievement gains.

Usability: The final version of the LEI contains a total of 105 items measuring 15 dimensions. There is one form and one level. The student responds by indicating the strength of his/her agreement or disagreement on a four-point scale ranging from strongly disagree to strongly agree. It is untimed but takes 40-55 minutes to administer. The survey instruments are scored locally only--no machine scoring is offered by the publisher. A number of research studies are cited showing the relationship of each subscale to learning outcomes. This provides some standards for interpreting scores as does means for 1,048 students in grades 10 and 11 (the student sample, however is old--1969). The test must be reproduced from an appendix in the manual with approval from the authors.

Supplemental Materials: Scoring key, manual, answer sheet.

Distribution/Availability: Bary J. Fraser, Faculty of Education, Western Australian Institute of Technology, Bentley, Western Australia 6102. Herbert J. Walberg, College of Education, University of Illinois at Chicago, IL 60680. The LEI and a short form of the LEI are also available in ERIC 228 296 and Fraser (1986b).

Comments: The authors suggest that the LEI could be used for individual student or group profiling. The authors recommend that subscale scores not be combined to get an overall measure of climate because the 15 dimensions are supposed to be independent. (This claim is partially borne out in studies cited in the manual. The reliability of individual subscales may be too low, however, for profiling individual students.)

There are two reviews in Buros (9th edition). The reviews found potential problems with low reliabilities for some subscales and a lack of general help in interpreting and using scores. Neither reviewer argued with the validity of the test and both thought that it had potential for research or use in the schools. Reviews by Chavez (1984) and Fraser (1986b) include summaries of research studies adding to the construct and predictive validity of the test. Chavez is convinced of the validity and usefulness of the LEI.

The manual was rewritten in 1982, but the test itself is the same as that developed in the late 60's. Although old, the LEI has been used extensively in research and in schools and has evidence of validity and usefulness. It seems to be one of the better instruments.

Title of Instrument: My Class Inventory (MCI-1982)

Author(s): Barry J. Fraser, Gary J. Anderson and Herbert J. Walberg

Institution of Author(s): Western Australian Institute of Technology, Perth; McGill University, Montreal, Canada; and University of Illinois, Chicago (respectively).

Test Description/Intended Purposes: The MCI was designed to measure student perceptions of five dimensions of classroom social climate. It is intended for use with students 8-12 years old. It is a simplified version of the LEI.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Cohesiveness	Competitiveness		
Friction	Difficulty		
Satisfaction			

Author's Description of Subtests:

Cohesiveness: Extent to which students, know, help and are friendly toward each other.

Friction: Amount of tension and quarreling among students.

Satisfaction: Extent of enjoyment of class work.

Difficulty: Extent to which students find difficulty with the work of the class.

Competitiveness: Emphasis on students competing with each other.

Reliability: Internal consistency reliabilities for individuals range from .62-.78 (N=2305). Interclass correlations for groups range from .73 to .88 (N=100 classrooms). Reliabilities are too low for profiling individual students. Group profiling appears justified. These reliabilities are, however, based only on 7th graders.

Validity: The items are simplified versions of those on the LEI. The authors revised an earlier version because of low subscale reliabilities to form the current 1982 version. The authors examined the ability of the subscales to differentiate between classes and how well it predicts student outcomes. Two reviewers in Buros (9th edition) felt that the instrument has promise but needs more validation work at grades lower than 7th. Chavez (1982) summarizes research studies using the MCI and feels it is a good instrument. Fraser (1986) also summarizes research using the MCI.

Usability: The MCI has 38 questions in a yes or no format. Students answer on the test form itself rather than a separate answer sheet. To help interpret results and provide standards of comparison, the manual provides means for 2,305 7th graders in Australia. There are no norms or other assistance with interpretation. To use the instrument, one must photo copy it from an appendix in the test manual after obtaining the authors' approval. Scoring must be done locally. Buros reviewers felt that the manual was somewhat skimpy in assistance with interpreting and using results, but that it is easy to administer and score.

Supplemental Materials: Test manuals, reviews of relevant research concerning the use of the instrument along with suggestions for ways in which teachers and researchers might make use of the scales is also provided. Items are cross-referenced to subtests.

Distribution/Availability: Barry J. Fraser, Western Australian Institute of Technology, Bentley, Western Australia 6102 or Herbert J. Walberg, College of Education, University of Illinois at Chicago, Chicago, IL 60680. The most recent MCI and a short form of the MCI are also available in ERIC ED 228 296 and in Fraser (1986b).

Comments: This instrument has not been as extensively used as the CES or LEI, but seems to be regarded as one of the better instruments.

Title of Instrument: The Quality of School Life Scale (QSL-1978)

Author(s): Joyce L. Epstein and James M. McPartland

Institution of Author(s): The John Hopkins University

Test Description/Intended Purposes: To assess the attitudes and reaction of students in grades 4-12 to school life.

Psychosocial Dimensions (Expanded Moos' dimensions categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Student Satisfaction	Commitment to Classwork		
Reactions to Teachers			

Author's Description of Subtests:

Satisfaction With School: General student reaction to school.

Reactions to Teachers: Student evaluations of instructional and personal interactions with teachers.

Commitment to Class Work: Level of student interest in classwork.

Reliability: Internal consistency reliability of the QSL was calculated on the scores of 4,266 elementary and secondary students. The overall KR-20 reliability for the QSL is .87 and .89 for secondary and elementary students, respectively. Subscale reliabilities range from .64 to .89. This is fairly good for instruments of this nature.

Validity: Student interpretation of items was solicited to ensure that students understood what was being asked. Items were revised using traditional item analyses. The authors correlated scores on this measure to other factors which seem to relate to attitude toward schools. Relationships were small to moderate in the directions predicted. They looked at differences between groups of students expected to differ in their reaction to school life. The factor structure lends credibility to the subscales, although reactions to teachers could be divided into two parts--personal and instructional interactions. There is some evidence that scores relate to adjustment problems in school. The authors report a low relationship with student achievement.

Usability: Students respond to 27 items--14 true/false, nine multiple choice, and four items in which respondent makes a selection ranging from always to never. The QSL also asks the students to comment in their own words about the quality of their school experience. The questionnaire may be administered to small or large groups of students in about 20 minutes. Stanine-like norms for students and classes (based on the pilot test sample of 4,266 students in Maryland) are reported. There is some help with the interpretation of results. The instrument is attractively packaged.

Supplemental Materials: The administration and technical manual gives instructions for administering the survey along with documentation of reliability and validity, summaries of research on student attitudes, a scoring key, directions for developing local norms, and sample report formats.

Distribution/Availability: Riverside Publishing Company, 8420 Bryn Mawr Avenue, Chicago, Illinois 60631, 1-800-323-9540.

Comments: The QSL was developed with the belief that attitude towards school should be studied as an educational outcome in addition to academic success. The authors recommend its use for individual students, to make program decisions, and to measure satisfaction with school as an outcome measure in and of itself. The scales include overall attitude toward school as well as more conventional aspects of learning environment. There appears to be some confusion as to what the scale actually measures (see Buros' review, 9th edition). Validation relied on correlations with other measures of student attitudes toward school rather than associating student perceptions to other measures of school climate--such as student-teacher interactions and percentage of teacher- talk. Also, reported correlations with achievement are low. The author interprets this to mean the QSL measures aspects of students other than achievement. Thus, the QSL might be a better measure of student attitude to school than educational climate as a predictor of achievement.

The author notes that subject specific attitudes can be obtained by revising the basic QSL items to refer to specific subjects. No norms are available for this use. Further research on the use of the QSL is reported in The Quality of School life, Joyce L. Epstein (Ed.), Lexington Books, 1981.

Title of Instrument: School Climate Index (NS1-1981)

Author(s): Douglas S. Finlayson

Institution of Author(s): University of Liverpool, Great Britain

Test Description/Intended Purposes: The NS1 is intended as one part of an index of social climate for secondary schools. Pupils provide their perceptions of certain aspects of the behavior of their teachers and their peers in the school.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Emotional Tone	Task Orientation	Social Control	
Concern			

Author's Description of Subtests:

> Task Orientation: The degree to which the pupils perceive their peers to have accepted the tasks set for them by the school and to be applying themselves to these tasks.
>
> Emotional Tone: The degree to which pupils perceive their peers deriving social and emotional satisfaction from participation in school activities.
>
> Concern: The degree to which pupils perceive their teachers to be sensitive to the individual social and emotional needs of students.
>
> Social Control: The degree to which pupils perceive their teachers to impose their expectations on pupils and to be required to exercise power in an attempt to secure compliance.

Reliability: Based on the final sample of 978 students, internal consistency reliability of subscales range from .77 to .84. This is adequate for group profiling.

Validity: The NS1 is based on the work of Halpin and Croft who developed the OCDQ. The social climate of a secondary school is seen as the behavior of teachers, department heads and the principal with regard to social control and social/emotional needs. Four booklets were devised to assess this area--pupils' perceptions of the behavior of their peers and teachers and teachers' perceptions of the behavior of their colleagues, heads of departments and principal. The NS1 form appears to be the pupil instrument.

Items were developed based on aspects of behavior that appeared to be related to student outcomes. Many items were developed from interviews with students and all were reviewed by teachers. Subscales were developed based on factor analysis of items using several samples of students in Great Britain. The final sample consisted of 978 students in Grade 12. The scales differentiated between schools. No work was done to assess the relationship of scores to actual behavior or student outcomes.

Deer (1980) revalidated the subscales on a sample of students in Australia and provides shortened versions of the scales.

Usability: The final instrument has 24 items which students rate on a five-point scale from "strongly agree" to "strongly disagree," and takes about 30 minutes to give. Means for the final 978 grade 12 students in the final sample are provided for comparison. (But, these data are old, and represent only one grade in Great Britain.) There is little help with interpretation in the manual. Subsequent research using the instrument would need to be consulted for additional help on interpretation. The booklets are not professionally packaged--they appear to have been been developed mainly for research purposes.

Supplemental Materials: A manual includes development of the scales, test administration, scoring instructions, some help with interpretation, and an answer sheet.

Distribution/Availability: NFER, The Mere, Upton Park, Slough.

Comments: The teacher subscales seem to cover student perception of both teacher instruction and interaction with students. The manual is hard to read.

Although we have examined only the student rating scale, we assume that the other three instruments were similarily developed. From later publications (Finlayson, 1973) the subscales on the other instruments are:

Teacher Group Behavior Scales:

Teacher Interaction Scales:

Identification: Behavior which reflects work satisfaction and involvement with the school.

Familiarity: Behavior indicative of staff willingness to establish and maintain close, satisfying relationships with their colleagues.

Social Disintegration: Behavior indicative of disunity amongst the staff and which is reflected in fragmentation into 'cliques'.

Obstruction: Teachers' feelings that the school does not offer them sufficient support with their work. References to equipment, clerical and timetable matters are included.

Teacher/Community Interaction Scales:

Teacher Professional Communication: Amount of contact the staff are perceived to have with other teachers in professional situations, e.g. meetings, visiting, inservice training, etc.

Teacher/Community Communication: Amount of community contact the staff are perceived to have with people and organizations who would be important for individual pupils, e.g. parents, school welfare officers, etc.

Teacher/Parent Communication: Behavior indicative of the extent to which the school actively seeks to give information about pupils and the school to parents.

Head of Department Behavior Scales:

Problem Orientation: Behavior which actively seeks to move the organization, and to anticipate problems rather than deal with them only when circumstances force action.

Personal and Professional Concern for Staff: Behavior which shows a willingness to treat staff as human beings and to encourage their participation in the school and educational developments.

Bureaucratic Orientation: Behavior which is highly directive towards junior staff and which limits 'feed-back' from them.

Friendliness: Behavior indicative of easy social relationships with other members of staff.

Head Behavior Scales:

Awareness: Behavior indicative of sensitivity to problems and awareness of what is going on in the school.

Professional Concern for Staff: Behavior indicative of interest in the professional development of the staff.

Personal Concern for Staff: Behavior which shows a willingness to treat members of staff as individuals and to become involved in their personal welfare.

Bureaucratic Orientation: Behavior which is highly directive towards junior staff and which limits 'feed-back' from them.

Openness: Behavior which reflects the head's willingness to encourage staff involvement in policy-making by seeking information and advice from them.

Friendliness: Behavior indicative of easy social relationships with other members of staff.

Finlayson (1973) also reports that the internal consistency reliabilities of all scales range from .68 to .91 which seem adequate for group profiling. Finlayson (1973) provides additional assistance with interpretation of results.

These scales have been used in a number of studies. There appears also to be another comparison instrument--the School Organization Index. It seems to assess student perceptions of opportunities for students to interact, be involved in decision making, degree of control by teachers and teacher flexibilty in teaching.

SCHOOL CLIMATE INSTRUMENTS

Title of Instrument: Effective School Battery (ESB-1981)

Author(s): Gary D. Gottfredson

Institution of Author(s): Center for Social Organization of Schools, the Johns Hopkins University.

Test Description/Intended Purposes: To assess a variety of features of effective schools in order to determine how effective a school is and what features could be improved.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Teacher Scales:			
Race Relations		Planning and Action	Resources
Smooth Administration		Student Influence	Parent/Community Involvement
Morale		Grades as Sanctions	Safety
Student Scales:			
Respect for Students		Planning and Action	Safety
		Fairness of Rules	
		Clarity of Rules	
		Student Influence	

Author's Description of Subtests:

Teacher Scales:

Safety: How safe teachers report the school environment to be.

Morale: The degree of enthusiasm of a school's faculty and faculty confidence in the school.

Planning and Action: Teacher reports of the degree to which the school takes an experimenting or innovative approach to planning school improvements and is open to confront rather than ignore emerging problems.

Smooth Administration: How teachers perceive the school adminis-tration, getting the help they need to do their jobs when they need it, administrators are supportive of teachers, administrators reward staff for doing a good job, and degree of conflict or tension between teaching staff and administrators.

Resources: Adequate instructional supplies and other resources.

Race Relations: How well different ethnic groups get along.

Parent/Community Involvement: Indicates the degree to which the school uses community resources in its programs.

Student Influence: The extent to which students participate in school decisions.

Avoidance of the Use of Grades as a Sanction: The extent to which teachers avoid lowering grades in response to student misconduct.

Student Scales:

Safety: How safe students report the school environment to be.

Respect for Students: How students feel they are treated in the school.

Planning and Action: The degree to which the school undertakes efforts to plan and implement school improvement.

Fairness of Rules: Whether students believe the school's rules are equitable and fairly administered.

Clarity of Rules: Whether students know what the school rules are and what the consequences are for rule violation.

Student Influence: The extent to which students are able to influence matters of concern to them.

Reliability: Requested

Validity: The instrument is based on a review of the literature on characteristics of effective schools and ongoing research at the Center listed in (3) above. No other information is provided.

Usability: There are both student and teacher forms to gather perceptions about the actual environment. There are 118 multiple choice, true/false, and three-point Likert items on the student form. There are 115 multiple choice, true/false, and Likert items on the teacher form. It is attractively packaged. (More information is requested.)

Supplemental Materials: The score report includes profile graphs of percentile rankings, and averages with error bands. Assessing Effective Schools is a booklet covering characteristics of effective schools in more detail.

Distribution/Availability: Psychological Assessment Resources, Inc., P.O. Box 98, Odessa, FL 33556 (1-800-331-TEST).

Comments: The instrument includes a collection of information about students and teachers as well as information on psychosocial climate and other topics found in the effective schools literature, e.g., relationship with parents and staff development. Thus, it has a broader definition of school climate than other instruments reviewed.

• Note: In addition to the subtests listed, the ESB also collects other attitudinal information which can be used to look at the affective effect of school. The student scales are Positive Peer Associations, Social Intergration, Attachment to School, Involvement, Educational Expectation, School Effort, Belief in Rules, Avoidance of Punishment, and School Rewards. The teacher descriptive scales are Pro-Integration Attitude, Job Satisfaction, Professional Development, Classroom Orderliness, Nonauthoritarian Attitude, and Personal Security.

Title of Instrument: The High School Characteristics Index (HSCI); The Elementary and Secondary School Index (ESI)

Author(s): George G. Stern

Institution of Author(s): Syracuse University

Test Description/Intended Purposes: The instruments are intended to measure the psychological characteristics of the academic environments of elementary and secondary schools. The HSCI is designed for grades 9-12 and the ESI is designed for grades 4-12.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Group Social Life	Intellectual Climate	Orderliness/Control	
Peer Group Dominance	Personal Dignity/ Supportiveness		
	Achievement Standards		
	Expressiveness		

Author's Description of Subtests:

Intellectual Climate: Qualities of a staff and plant specifically devoted to scholarly activities in the humanities, arts and social sciences.

Expressiveness: Aesthetic awareness and emotional participation; opportunities offered to the student for the development of leadership potential and self-assurance.

Group Social Life: An environment that is fun-loving, friendly and actively outgoing.

Personal Dignity/Supportiveness: Encouragement of autonomy among students, and allowance for expression of dependency and defensiveness.

Achievement Standards: High standards for achievement.

Orderliness/Control: Administrative structure and regulatory orderliness.

Peer Group Dominance: Value of peer group relations.

Reliability: The HSCI was given to 947 high school students in several U.S. cities. Internal consistency reliabilities ranged from .75 to .91. This is adequate for profiling individuals at the subscore level. Subscale reliabilities for the ESI range from .71 to .81. This is a little low for profiling individual students.

Validity: Based on the needs press paradigm of Murray (1938). Based on 947 high school students, each subscale differentiated between schools. The seven scales were developed based on a factor analysis of scores on an original set of 30 elements--elements that grouped together were placed on the same subscale. A factor analysis based on 6,733 HSCI cases was used to cross-check the subscales on the instrument and was used to develop the ESI. There is no information on the relationship of scores to achievement.

Usability: The HSCI contains 300 true/false items and takes approximately 40-50 minutes to administer. The ESI is a short form of the HSCI, has 61 items, and requires about 15 minutes to complete. Both forms have a separate answer sheet. The instruments are attractively packaged although the manual is not. There is a little help with interpretation in terms of average scores for various groups and what high scores on each subscale mean. Scoring is available from the source listed in Availability below. Hand scoring appears difficult (even with scoring overlays).

Supplemental Materials: Separate answer sheet. The manual contains a brief description of content, statistical properties, answer key, scoring worksheet, and average scores for various groups.

Distribution/Availability: Evaluation and Research Associates, P.O. Box 6503, Teall Station, Syracuse, New York 13217, (315)685-5757.

Comments: This is part of a series of instruments developed by Stern (and others). The instruments include those which assess both the needs (Stern Activities Index) and the press (OCI, CEI, HSCI, ESI, CCI) in Murray's needs-press paradigm. Needs refer to individuals and press refers to demands of the environment. The scales are set up so that press scales can be directly related to the needs scales.

In general, materials accompanying the instruments are skimpy. The series of instruments of which the HSCI and ESI are a part is intriguing, but without more information they would be difficult to use. A review in Anderson (1982) appears supportive of the instruments and cites a little research using them. More information about the HSCI is available in Stern (1970).

Title of Instrument: Learning Climate Inventory (LCI-1976)

Author(s): John R. Hoyle

Institution of Author(s): Texas A & M University.

Test Description/Intended Purposes: To measure teachers' perceptions of five dimensions of school environment at the elementary or secondary school level.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Leadership	Freedom	Evaluation	
	Compliance		
	Cooperation		

Author's Description of Subtests:

Leadership: The extent to which the teachers perceive the leadership behaviors of the administrators as positive and helpful.

Freedom: This extent to which teachers feel free to experiment and determine their own instructional activities in their classrooms. (5 items).

Evaluation: The extent to which teachers and students are involved in teacher and administrator evaluation (3 items).

Compliance: The extent to which teachers feel the pressure to conform to the rules of the system (3 items).

Cooperation: The extent to which teachers are supported in their efforts to team-teach and use resource people (3 items).

Reliability: Based on six samples of teachers in the U.S. (of 134 to 1,000 teachers), internal consistency reliabilities ranged from .50 to .75. Test-retest reliabilities ranged from .75 to .92. Subscale reliabilities are a little low for individual profiling.

Validity: The information provided with the instrument indicates that the 20 items were allocated to subscales based on a factor analysis. More information on this study is available in Chapter 2 of Hoyle et al. (1985), pp. 22-24.

Usability: The instrument has 20 items with a seven-point scale ranging from "Never" to "Always." Except for two items, a response of seven indicates an open environment. The LCI is untimed and requires about 15 minutes to give. There is a little help in the manual with profiling and comparison between teacher and principal ratings. The instrument is available in two different, attractively packaged, formats.

Supplemental Materials: Three-page summary of development, scoring and research studies using the LCI.

Distribution/Availability: Climate Research Associates, 1308 Todd Trail, College Station, TX 77840.

Comments: The LCI appears to have been originally developed for use in staff development and later for research. The information on administration and use sent with the instrument is brief but users are encouraged to contact the author for more information.

Title of Instrument: Organizational Climate Description Questionnaire (OCDQ-1963)

Author(s): Andrew W. Halpin and Don B. Croft

Institution of Author(s): Halpin is retired and Don Croft is at New Mexico State University.

Test Description/Intended Purposes: The OCDQ was designed for administration to faculty and principals in elementary or secondary schools to assess school climate (more specifically, organizational climate). It focuses on perceived social interactions between teachers and between the principal and teachers.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Espirit	Trust	Production Emphasis	
Disengagement	Hindrance	Aloofness	
Consideration			
Intimacy			

Author's Description of Subtests:

Teacher's Behavior:

Disengagement: How well the teachers work together.

Hindrance: Extent that teachers feel that their principal burdens them with routine duties, committee demands, and other requirements construed as unnecessary work.

Espirit: Morale--whether teachers' social needs are being satisfied, and whether they have a sense of accomplishment in their job.

Intimacy: The degree of teacher enjoyment of friendly, social relations with each other. Social needs satisfaction.

Principal's Behavior:

Aloofness: Refers to the formal and impersonal behavior of the principal.

Production Emphasis: The degree to which the behavior of the principal is characterized by close supervision of the staff. Highly directive.

Trust: Principal behavior marked not by close supervision of the teacher, but by the attempt to motivate the teachers through the example which he or she personally sets.

Consideration: The principal's inclination to treat the teachers humanly.

Reliability: Split half reliabilities (internal consistency) range from .26 to .84 (with a median of .64). Several reviewers have noted that, given the extensive use of the instrument, there are relatively few reliability estimates available.

Validity: The initial pool of items was developed from analysis of critical incidents, interviews and other questionnaires. Final items were selected on the basis of pilot testing. The eight subtests were developed by factor analysis--items that clustered were assigned to a common subscale.

The author assumes that the "open" end of the climate continuum is best. Subsequent studies as reviewed by several recent authors show an inconsistent relationship between the OCDQ and student achievement.

Usability: The final version of the OCDQ contains 64 items. The respondents rate each item along a four-point scale ranging from rarely occurs to very frequently occurs. The OCDQ is untimed but takes about 20 minutes to administer. Scoring is available from Halpin at the address noted under availability or from Croft, College of Education, New Mexico State University, Las Cruces, New Mexico 88001 (505-646-2004). Response profiles can be used to classify the school into six climate types: open, autonomous, controlled, familiar, paternal and closed. (However, several reviewers of the OCDQ find little subsequent research which supports these profile types).

Supplemental Materials: No information

Distribution/Availability: Andrew Hayes, Department of Educational Design, University of North Carolina-Wilmington, 601 South College Road, Wilmington, North Carolina 28403. Also in Halpin, A.W. Theory and Research in Administration. New York: The Macmillan Company, 1966. Permission for use must come from the author because the instrument has a copyright.

Comments: The OCDQ is probably the most widely used instrument measuring school level environment. Thomas (1976) has pointed out that the OCDQ has been used over 200 times in at least eight different countries. Despite several inadequacies that have been noted by recent researchers, it has promoted a broad-based interest in school climate (Andersen, 1982). In general, the OCDQ has appeared to be useful in describing and comparing school climates. However, several reviewers feel there is little support for the six climate types generated by profiling schools using the eight subtests. They also note the inconsistent relationships with student outcomes (affective or achievement).

Title of Instrument: Organizational Climate Index (OCI)

Author(s): George G. Stern and Carl R. Steinhoff

Institution of Author(s): Syracuse University

Test Description/Intended Purposes: The OCI is intended to characterize the psychological climate of a wide variety of institutional work settings as perceived by the staff. The different institutional types tend to elicit slightly different factor structures for the subscales.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Closeness	Achievement Standards	Orderliness	
Group Life		Impulse Control	
	Personal Dignity		
	Intellectual Climate		

Reliability: Requested

Validity: The OCI is based on the needs-press paradigm of Murray (1938). The original study sample consisted of 931 teachers and administrators in 43 schools in a single school district. The subscales were based on a factor analysis using this group. The subscales differentiated between schools. There was no relationship between the subscales and teacher turnover or absenteeism (Stern, 1970, p. 282). Some subscale scores relate to student absenteeism and achievement (p. 285).

Usability: The OCI long form contains 300 true/false items. It generally requires 40 to 50 minutes for administration. The short form contains 80 items and can be administered in less than 20 minutes. From the materials obtained so far, help with interpretation is skimpy.

Supplemental Materials: A manual has been requested, but has not yet been received.

Distribution/Availability: Evaluation and Research Associates, Inc., P.O. Box 6503, Teall Station, Syracuse, New York 13217, (315)685-5757. The instrument can also be reconstructed from Stern (1970).

Comments: This is part of a series of instruments developed by Stern (and others). The instruments include those which assess both the needs (Stern Activities Index) and the press (OCI, CEI, HSCI, ESI, CCI) in Murray's needs-press paradigm. Needs refer to individuals and press refers to demands of the environment. The scales are set up so that press scales can be directly related to the needs scales. Although this is an instrument which can be used in a variety of settings, both the long and short forms have been used in the schools.

More information is available in Stern (1970). There needs to be more information available to the user on interpretation and use of results.

Title of Instrument: Parent Opinion Inventory (POI-1981)

Author(s): National Study of School Evaluation

Institution of Author(s): National Study of School Evaluation

Test Description/Intended Purposes: To assess parents' attitudes in reference to their school and its programs.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
General Psychological Climate		Parent Involvement	Intra-School Problems
Intra-Student Body Relation		Innovative Programs	

Author's Description of Subtests: None is provided. Based on an examination of test content, the subscales appear to cover:

Intra-Student Body Relationships (2 items): Relationships between students.

School Information Services (2 items): Adequacy of information provided to parents.

Parent Involvement (3 items): Degree of parent involvement in decision making.

Educational Objectives (11 items): How well the school is preparing students in various areas.

Intraschool Problems (8 items): Safe and orderly environment.

Innovative Programs (2 items): There is ongoing innovation.

School Program Factors (7 items): Instructional program is adequate.

Student Activities (4 items): Adequacy of activities for students.

Support Services (7 items): Adequacy of support and auxiliary services.

General Psychological Climate (7 items): Moral of teachers and students, relationships between students and others.

Reliability: Based on a sample of 1,566 teachers, the internal consistency reliabilities of the subscales (3 or more items) ranged from .50 to .80. (Some subscales have only three items.) This is too low for individual profiling on subscales.

Validity: Other parent questionnaires were examined for content. Items were reviewed by a panel of experts. Items were field tested. Final items were selected based on traditional item statistics. No other information is provided.

Usability: There are 53 multiple choice and five open-ended questions.

Supplemental Materials: A manual has directions for administration and scoring.

Distribution/Availability: National Study of School Evaluation, 5201 Leesburg Pike, Falls Church, VI 22041.

Comments: There are three companion instruments--SOI, TOI and POI. There is no rationale for the construction of the scales. The items put together on the same subscale seem to be very heterogeneous. This one seems marginal in terms of content related to psychosocial climate.

Title of Instrument: School Learning Climate Assessment Instrument (SLCAI). (No publication date given).

Author(s): Wilbur Brookover, Lonnie McIntyre, John Schweitzer and Edward Slawski.

Institution of Author(s): Michigan State University; and Pontiac City Schools.

Test Description/Intended Purposes: The goal of this instrument is to validly measure the characteristics that distinguish between schools with higher levels of mastery of the basic objectives and schools with low levels of such achievement.

Psychosocial Dimensions (Expanded Moo's dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
	Emphasis on Achievement	Administrative Leadership	Safe and Orderly Environment
	Expectations of Students	Grouping	
		Use of Test Data	
		Time for Instruction	

Author's Description of Subtests:

Administrative Instructional Leadership: This factor measures behaviors of principals in effective schools. It also measures how effective the teacher rewards systems are perceived (18 items).

Emphasis on Achievement or Commitment: This factor measures how committed the teachers are to academic achievement in their students (8 items).

Expectations and Evaluations of Students: This factor measures the teachers assessment of the academic ability of the students in their school and their expectations of them.

Use of Test Data: This factor measures the extent that tests results are used to modify instructional programs.

Safe and Orderly Environment: This factor measures the extent of positive feelings that permeates the school and the physical condition of the school (10 items).

Grouping for Instruction: This factor measures the heterogeneous grouping practices of the school (4 items).

Time for Instruction: This factor measures the attendance practices of teachers and students at the school (4 items). (The authors note that this scale is not a valid measure of time-on-task.)

Reliability: The author feels that it is impossible to calculate reliability on this type of instrument because of the significant changes that occur in school climate.

Validity: The instrument content was based on the effective schools literature. The instrument was pilot tested twice in order to identify those dimensions which distinguished most between low and high achieving schools.

Usability: This instrument is designed for the professional school staff to use in assessing the school learning climate. It has 60 questions with five-point likert-type response scale. It takes approximately 25 minutes to complete. There are no norms. There are some guidelines for interpreting results. The instrument is not commercially packaged--it comes in typewritten format on 8-1/2 x 11" paper.

Supplemental Materials: A factor identification and scoring manual is included with the assessment instrument.

Distribution/Availability: Urban Affairs Program, Michigan State University, 138 West Owen Hall, East Lansing, Michigan 48824.

Title of Instrument: School Level Environment Questionnaire (SLEQ-1983)

Author(s): John Rentoul and Barry J. Fraser

Institution of Author(s): St. Andrews Presbyterian Boys School, Christchurch, New Zealand; and Western Australian Institute of Technology, Bentley, Western Australia 6102 (respectively).

Test Description/Intended Purposes: The SLEQ measures teachers' perceptions of eight psychosocial dimensions of the environment of primary and/or secondary schools.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Affiliation	Professional Interest	Formalization	Resource Adequacy
Student Supportiveness	Achievement Orientation	Centralization	
		Innovativeness	

Author's Description of Subtests:

Affiliation: The extent to which teachers can obtain assistance, advice and encouragement and are made to feel accepted by colleagues.

Student Supportiveness: The extent to which there is good rapport between teachers and students and students behave in a responsible manner.

Professional Interest: The extent to which teachers discuss professional matters, show interest in their work and seek further professional development.

Achievement Orientation: The extent to which teachers value and expect high student achievement and how much competition is encouraged among students.

Formalization: How teachers are expected to comply with set rules, guidelines, and procedures and are supervised to ensure rule compliance.

Centralization: The degree to which decisions are made by an individual or a small group within the school.

Innovativeness: The degree to which the school is in favor of planned change and experimentation and fosters classroom openness and individualization.

Resource Adequacy: The degree to which equipment, financial resources, and support personnel are perceived as being suitable and adequate.

Reliability: Internal consistency reliability on a group of 83 teachers in Australia ranged from .70 to .91 for the various subscales. This was replicated with a subsequent sample of 34 teachers. A later study of 106 teachers (Williamson et al, 1986) looked at both actual and preferred forms of the SLEQ. Internal consistency reliability for the actual form ranged from .64 to .78 and for the preferred form from .63 to .81. These reliabilities are a bit low for profiling individual teachers.

Validity: The test content is based on Moos' (1974) work on the dimensions of psychosocial environments. The authors report that they attempted to avoid some problems with other instruments by reviewing the school environment literature and having extensive teacher reviews to insure its relevance to the schools. They also attempted to have minimum overlap with existing classroom climate instruments.

The subscales correlate moderately with each other suggesting that they measure different but slightly overlapping aspects of school environment.

Usability: The final version of th SLEQ contains 56 items with each of the eight scales being assessed by seven items. Each item is rated on a five-point scale with responses ranging from strongly agree to strongly disagree. Teachers respond to the survey. There are no norms available. The instrument was designed for research purposes and must be reproduced from one of the sources listed below. There is assistance with scoring but little help with interpretation and use.

Supplemental Materials: Scoring key

Distribution/Availability: Barry J. Fraser, Western Australian Institute of Technology, Bentley, Western Australia 6102. Also available in Rentoul and Fraser (1983) and Williamson, et al (1986). Williamson et al also contains both "actual" and "preferred" forms.

Comments: The SLEQ is a fairly new instrument developed as one of Fraser, et al's "package" of classroom and school environment instruments. As such it has considerable promise, but as yet it has not been used in much research and has not been subjected to a great deal of validity study--especially relationship to student outcomes. Being a research tool it has not been packaged for easy interpretation and use in the schools.

Title of Instrument: Student Opinion Inventory (SOI-1981)

Author(s): National Study of School Evaluation

Institution of Author(s): National Study of School Evaluation

Test Description/Intended Purposes: The instrument is intended to assess student morale and attitude toward various aspects of the school and its program. It is intended for use in secondary schools.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Student-Teacher	Student-Curriculum/ Instruction		
Student-Counselor			
Student-Admin.	Student Participation		
Student-School			

Author's Description of Subtests: None provided. Based on an examination of items, the subscales seem to assess:

Student-Teacher: Clarity of task assignments and teacher encouragement and help.

Student-Counselor: Amount of help provided by the counselor in various areas and general satisfaction with this help.

Student-Administration: Degree of involvement in decision making, personal relationship with administration and encouragement in school work.

Student-Curriculum/Instruction: Usefulness of content, how much is being learned, teaching methods.

Student Participation: Range of activities available to students.

Student-School Image: General satisfaction with school.

Reliability: Internal consistency reliabilities (based on a sample of 10,120 secondary students in 10 states) for subscales range from .68 to .87 and the reliability for the total instrument is .93. These are good.

Validity: No theoretical rationale for content is provided. Items were pilot tested. Subscales on the SOI were correlated with scores on a semantic differential instrument designed by the authors to assess the same areas. Correlations ranged from .34 to .59. This seems low. No other information is provided.

Usability: There are 34 multiple choice and 12 open-ended items. The open-end questions can be expanded by local users. Scoring must be done at the local level. There is no time limit, but most students can finish both parts in 45 minutes. There are no norms. There is little assistance with interpretation. The instrument is attractively packaged.

Supplemental Materials: A manual containing a brief description of development of the instrument, administration and scoring.

Distribution/Availability: National Study of School Evaluation, 5201 Leesburg Pike, Falls Church, VI 22041.

Comments: There are three companion instruments--SOI, TOI and POI. There is no rationale for the construction of the scales. The items put together on the same subscale seem to be very heterogeneous.

Title of Instrument: Teacher Opinion Inventory (TOI-1981)

Author(s): National Study of School Evaluation

Institution of Author(s): National Study of School Evaluation

Test Description/Intended Purposes: To assess teacher opinion toward many facets of the school.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships Personal Development System Maintenance Physical Environment
Content is too diverse within subscales for classification.

Author's Description of Subtests: None is provided. Based on an examination of items, the subscales seem to assess:

> Organization and Administration: Involvement in decision-making, qualified inservice, faculty meetings, committee work, good relationship with administration.
>
> Curriculum and Instruction: Usefulness of content, how much kids are learning, relationships between teachers and students, autonomy of teachers in instruction, work load, availability of activities for students, emphasis on various curriculum areas.
>
> Student Discipline, Counseling, Advisement: Extent of student involvement in decision-making, consistency of discipline, relationships between students and others.
>
> School/Community Relations: Parent knowledge of school activities and relationship between parents and the school.
>
> Job Satisfaction: Morale.

Reliability: Based on a sample of 1,435 teachers, the internal consistency reliability of the total score is .91. No reliabilities are provided for subscales.

Validity: A panel of experts was used to develop an initial set of items they considered to be valid and useful. The items were field tested and the final items selected based on traditional item statistics. No other information is provided.

Usability: There are 64 multiple choice and eight open-ended items. There is a table relating items on the SOI, TOI and POI so that the opinions of the three groups on the same topic can be compared. It is untimed and no estimate of administration time is provided. There are no norms and no assistance with interpretation and use. The instrument is attractively packaged.

Supplemental Materials: A manual includes administration and scoring instructions.

Distribution/Availability: National Study of School Evaluation, 5201 Leesburg Pike, Falls Church, VI 22041.

Comments: There are three companion instruments--SOI, TOI and POI. There is no rationale for the construction of the scales. The items put together on the same subscale seem to be very heterogeneous.

Title of Instrument: Thinking About My School (TAMS-1985)

Author(s): Joanne R. Whitmore

Institution of Author(s): Not Given

Test Description/Intended Purposes: The TAMS is designed to measure student perceptions of the school environment and feelings about their school. It was designed for use in grades 4-6.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Social	Work	Power	
Teachers			
Liking For School			

Author's Description of Subtests:

Power: The extent of student participation in decision making.

Social: Pleasant relationships between students.

Work: Extent of involvement in school work and attitude toward school work.

Teachers: Teacher-student relationships and teacher enjoyment of their job.

Liking For School: General desire to be in school.

Miscellaneous: School rules, parents opinion of school, feeling of importance.

Reliability: Internal consistency reliability (based on the initial group of students on whom it was used--no size given) for the total score was .92. The subscales ranged from .60 to .76. Subscale reliabilities are a little low to profile individual students.

Validity: The instrument was designed to assess several areas of interest in a particular school district in California. It was also intended to be simple in structure (one response format) and vocabulary. Statements for the inventory were taken from discussions with students on school life. Items were selected based on traditional item statistics. A factor analysis was used to confirm the scales. (A reference is provided for this information, but the data is not presented in the manual.) The manual states that scores on the TAMS are related to observed behavior and other self-reports. They also state that scores discrimmate between groups of students identified by teachers as differing in their attitude toward school. (Again, no concrete data is provided in the manual.) No evidence is provided for relationship to student cognitive outcomes.

Usability: There are 47 statements for which students respond on a four-point scale from "not at all" to "all the time." The instrument is untimed and takes about 30 minutes to give. Help on interpretation consists mainly of profiling. There are no norms.

Supplemental Materials: A manual includes description of development of the instrument, scoring and some help with interpretation. A separate score summary sheet is provided.

Distribution/Availability: United Educational Services, Inc., P.O. Box 605, East Aurora, New York 14052 (716)652-9131.

Comments: This seems to assess both student attitude toward school and student perceptions of some aspects of the psychosocial climate at school. It appears to have good technical characteristics. It is not as comprehensive as other measures.

Title of Instrument: Work Environment Scale (WES-1974)

Author(s): Rudolf Moos

Institution of Author(s): Social Ecology Laboratory, Department of Psychiatry, Stanford University; and Veterans Administration Medical Center, Palo Alto, California.

Test Description/Intended Purposes: The WES comprises 10 subscales that measure the social environments of different kinds of work settings. When used in the schools it measures teacher involvement and morale in the teaching environment.

Psychosocial Dimensions (Expanded Moos' dimension categories):

Relationships	Personal Development	System Maintenance	Physical Environment
Involvement	Autonomy	Clarity	Physical Comfort
Peer Cohesion	Task Orientation	Control	
Staff Support	Work Pressure	Innovation	

Author's Description of Subtests:

Involvement: The extent to which employees are concerned about and committed to their jobs.

Peer Cohesion: The extent to which employees are friendly and supportive of one another.

Supervisor Support: The extent to which management is supportive of employees and encourages employees to be supportive of one another.

Autonomy: The extent to which employees are encouraged to be self-sufficient and to make their own decisions.

Task Orientation: The degree of emphasis on good planning, efficiency, and getting the job done.

Work Pressure: The degree to which the press of work and time urgency dominate the job milieu.

Clarity: The extent to which employees know what to expect in their daily routine and how explicitly rules and policies are communicated.

Control: The extent to which management uses rules and pressures to keep employees under control.

Innovation: The degree of emphasis on variety, change, and new approaches.

Physical Comfort: The extent to which the physical surroundings contribute to a pleasant work environment.

Reliability: Reliability information was generated using the two samples described under validity. Internal consistency reliabilities ranged from .69 to .86 and test-retest reliabilities ranged from .51 to .63 (after 12 months). These reliabilities are somewhat low for individual teacher profiling.

Validity: This is part of Moos' Social Climate Scales series based on his work showing that a diverse number of social environments can be characterized using the same small set of

dimensions. Items were adapted from other Social Climate Scales and generated from interviews with workers. Final items were selected for the Real Form using traditional item statistics and the ability of items to discriminate between work settings. The Ideal Form was given to 348 people and the Expectations Form to 81. There is little evidence to support the subscale structure. There has been little work relating the WES to student and/or staff/ organizational outcomes in the schools. There has been more use of the WES in other work settings.

Usability: There are three forms of the WES--the Real Form (Form R) measures perceptions of existing work environments; the Ideal Form (Form I) measures the respondents' conception of the ideal work environment; and the Expectations Form (Form E) measures the respondents' expectations about a prospective work environment. Form R is a 90-item, paper/pencil, true/false survey that takes approximately 20 minutes to complete.

Health care (N=1,607) and ratio station plus others (N=1,442) norms for Form R are available as well as means for Forms I and E of a subsample of those in the R norms.

Suggestions for interpretation involve profiling and comparisons of various groups.

Supplemental Materials: A 1986 technical manual is provided containing an overview of the concepts behind the WES along with test administration, scoring and suggestions for use. Also available are a scoring overlay, separate answer sheet, profiling form and abstracts of research studies using the WES between 1979 and 1983.

Distribution/Availability: Consulting Psychologist Press, Inc., 577 College Avenue, Palo Alto, California 94306.

Comments: Although designed to assess the social environments of industrial or work milieus, this instrument has been used to measure the work environment of diverse kinds of work groups including the educational setting.

This instrument has potential for use in the schools but there is not much assistance with interpretation and use of results in that setting.

OTHER EDUCATIONAL CLIMATE INSTRUMENTS

Bardsley, W. N. (1978). The Assessment of school environments. Education Research & Perspectives, 4, 39-51.

This measures teacher perceptions of classroom and school environment. It was specifically developed to differentiate between settings in terms of openness of education. The two subscales are school organization and interpersonal-classroom. The scale can be reconstructed from the article cited.

Coughlan, R. J. (1970). Dimensions of teacher morale. American Educational Research Journal, 7, 221-235.

This instrument was developed to measure teachers' morale and satisfaction with the work environment. The instrument was developed through several field trials using factor analysis. The final instrument has 14 subscales--administrative practices, professional workload, nonprofessional workload, materials and equipment, buildings and facilities, educational effectiveness, evaluation of students, school/community relations, voice in educational programs, performance and development, and financial incentives. It has been used in a number of studies in conjunction with the LEI and MSI (Anderson, 1982). The instrument can be reconstructed from the source given above.

Fox, R. S. et al. (1974). School climate improvement: A challenge to the school administrator. Bloomington, IN: Phi Delta Kappa.

This survey can be completed by students, teachers, parents, other staff, and administrators. There are 130 statements on respect, trust, morale, opportunity for input, cohesiveness, school renewal, instruction, rewards, how decisions are made and resources. Each statement is rated twice--what is and what should be.

Gardner, P. L., & Taylor, S. M. (1980). A transmission-interpretation scale. British Journal of Educational Psychology, 50, 186-187.

The instrument was designed to measure student perceptions of teacher's verbal behavior regarding how teachers view learners (transmission v. interpretation). The instrument has 20, five-point Likert items and was developed through reviews by experts and field trial.

Kalis, M. C. (1980, April). Teaching experience: Its effect on school climate, teacher morale. NASSP Bulletin.

Sixteen statements (rated strongly agree to strongly disagree) based on review of literature designed to cover attitudes of teachers toward the principal, faculty, administration and administrative duties.

McDill, E. L., and Rigsby, L. C. (1973). Structure and purpose in secondary schools: The academic impact of educational climates. Baltimore, MD: The Johns Hopkins University Press.

The authors devised three questionnaires--student, teacher and principal to use in a large study of the relationship between climate and student outcomes and the dimensions of climate in the schools. The instruments gather both perceptions of climate and self report of population characteristics. The surveys are long, and were designed for research purposes. As an example, of how this would make use difficult in the schools, the authors analyzed data to delineate six climate dimensions, but the authors never detail specifically which items on the surveys contribute to each of these dimensions. Although well done, this scale would not be useful for self-evaluation.

Owens, L., & Straton, R. G. (1980). The development of a cooperative, competitive, and individualized learning preference scale for students. British Journal of Educational Psychology, 50, 147-161.

The authors report on the development of the Learning Preference Scale for Students--a 42-item survey eliciting student preferences for working cooperatively, competively or individually. The instrument was developed through two field trials and interviews with students. The scale can be reconstructed from the source given above.

Stern, V. (1974). The School Environment Inventory. ERIC ED 102 139.

This instrument was developed as part of the Child Behavior Observation System. It was designed to measure five dimensions--curriculum, teaching mode, teacher organization, teacher-student relationship, and physical environment. The document has only the scale--there is no documentation of development or use. The instrument is interesting in that it appears to be intended for outside observation of the classroom. Each item has stated criteria by which to judge the quality of the environment. (But, no rationale is given for this choice of items or for the relevance of each criterion.)

Thelen, H. A. (1981). The classroom society. London: Croom-Helm (p. 86).

The author used a 24-item scale to assess student perceptions of the stimulation and usefulness of classroom content. The three subscales are: Authenticity (the quality of activity which facilitates the search for "who am I?"); Legitimacy (what set of agreements, having what sort of authority, provide the justification for activities); and Productivity (the extent of individual and group development). The scale can be reconstructed from the book above.

HIGHER EDUCATION CLIMATE INSTRUMENTS

Astin, A. W., & Holland, J. L. (1961). Environmental assessment technique: A way to measure college environments. Journal of Educational Psychology, 52, 308-316.

Designed for the college environment, this instrument examines climate by looking at observable features of the college and students--average intelligent level of student body, size of student body, and six personal value orientations of the students.

Stern, George G. The college characteristic index. Syracuse, New York: Evaluation and Research Associates.

The College Characteristics Index (CCI) is part of the Stern series including the HSCI and CEI. It is a measure of the perceived press found in college environments. As a measure of college climate, it is based on items referring to curriculum, teaching and classroom activities, rules, regulations, policies, student organizations, activities, interests, features of the campus, services and facilities, and to relationships among students and faculty. The 300 CCI items have been arranged in a long form to reflect press corresponding to the 30 need scales found in the Activities Index (AI) by the same author. In addition, there is a short form which has 92 items. The 300 item form requires 40-50 minutes for administration while the short form can be completed in about 15-20 minutes. A "True" or "False" response is required for each item.

The 30 basic press scales can only be obtained by using the 300 item form. Fourteen factor and area scores can be derived from either form. These scores are: Aspiration Level, Intellectual Climate, Student Dignity, Academic Climate, Academic Achievement, Self Expression, Group Life, Academic Organization, Social Form, Play-Work, Vocational Climate, Intellectual Climate, Non-Intellectual Climate, Impulse Control.

Treagust, D. F., & Fraser, B. J. (1986). The college and university classroom environment inventory (CUCEI). Bentley, Western Australia: Western Australian Institute of Technology. Also Validation and application of the college and university environment inventory (CUCEI). Paper presented at the Annual Meeting of the American Educational Research Association.

The CUCEI assesses the student's and/or instructor's perceptions of the following seven psychosocial dimensions of actual or preferred classroom environment: personalization, student cohesiveness, satisfaction, involvement, task orientation, innovation, and individualization.

NATURALISTIC, CASE STUDY AND OBSERVATIONAL APPROACHES

Cusick, P. A. (1973). Inside high school: The students' world. New York: Holt, Rinehart & Winston.

Jackson, P. W. (1968). Life in classrooms. New York: Holt, Rinehart & Winston.

Rutter, M., Maughan, B., Mortimore, P., Ouston, J., & Smith, A. (1979). Fifteen thousand hours: Secondary schools and their effects on children. Cambridge, MA: Harvard University Press.

Stack, R. E., & Easley, J. A. Jr. (1978). Case studies in science education. Urbana, IL: University of Illinois.

CLASSROOM INTERACTION ANALYSIS

Amidon, E. J., & Hough, J. (1967). Interaction analysis: Theory, research and application. Reading, MA: Addison-Wesley.

Dunkin, M. J., & Biddle, B. (1974). The study of teachers. New York: Holt, Rinehart & Winston.

APPENDIX B

Summary Table of Instrument Characteristics

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CLASSROOM ENVIRONMENT INSTRUMENTS

Summary Table of Instrument Characteristics

Instrument	Psycho-social Dimen-sions*	Grades	Who Responds	No. Forms	No. Levels	No. Items	Item Types	Ad Time
Class Activities Questionnaire (1982)	1,2,3	6-12	Students Teachers	1	1	30	Structured; open-ended	20 min.
Classroom Environment Index (1975)	1,2**, 3	5-12	Students	1	1	300	T/F	40 min.
Classroom Environment Scale (1974)	1,2, 3**	7-12	Students	1	1	90	T/F	20-30 min.
Elementary School Environment Survey (1967)	1**, 2,4	3-5	Students	1	1	42	T/F	Not provided
Individualized Classroom Environ. Questionnaire (1979)	1,2,3	7-12	Students Teachers	1	1	50	Likert	30-60 min.
Learning Environment Inventory (1982)	1**, 2**, 3**,4	7-12	Students	1	1	105	Likert	40-55 min.
My Class Inventory (1982)	1,2	3-7	Students	1	1	38	Y/N	
The Quality of School Life Scale (1978)	1,2	4-12	Students	1	1	27	T/F, M/C., Likert	20 min.
School Climate Index (1981)	1,2,3	9-12	Students	1	1	24	Likert	30 min.

* 1. Relationships
2. Personal Development
3. Systems Maintenance
4. Physical Environment

** Emphasized

Scoring	Norms	Other Interp.	Reliability	Validity	Comments	Availability
Hand, machine	Fair	Some	Good	Some	Compares student to teacher perceptions.	Creativity Learning Press, Box 320, Mansfield, Center, CT 06250
Hand, machine	Fair	None	Good	Some	Hand, scoring is difficult. Part of a series of instruments by Stern.	Evaluation and Research Associates, P.O. Box 6503, Teall Station, Syracuse,
Hand	Fair	Some***	Fair-Good	Extensive	Solicits views of actual and ideal environment. Also has short form and teacher form.	Consulting Psychologists Press, 577 College Avenue, Palo Alto, CA 94306
Hand	None	Some	None	Some	There is also a parallel teacher form available.	David Sadker, School of Education, The American University, Wash. DC 20016
Hand	Fair	Some+	Fair-Good	Some+	Solicits views of actual and ideal environment related to individualized classrooms.	Western Australian Instit. of Technology, Bentley, Western Australia 6102. ERIC ED 228 296.
Hand	Fair	Some	Fair-Good	Extensive		Same as above
Hand	Fair	None	Fair-Good	Some	Simplified version of CEI.	Same as above
Hand	Fair	Some	Good	Some+	May be more a measure of attitude toward school than classroom climate.	Riverside Publishing Co. 8420 Bryn Mawr Avenue, Chicago, IL 60631
Hand	Fair	Some***	Good	Some	Part of a package of teacher, principal and community scales.	NFER, The Mere, Upton Park, Slough

*** Must be dug for in research literature.

SCHOOL ENVIRONMENT INSTRUMENTS

Summary Table of Instrument Characteristics

Instrument	Psycho-social Dimen-sions*	Grades	Who Responds	No. Forms	No. Levels	No. Items	Item Types	Ad Time
Effective School Battery (1981)	1,3**,4		Students Teachers	1	1	118	T/F, M.C., Likert	
High School Characteristics Index	1,2**,3	9-12	Students	1	1	300	T/F	40-50 min.
Learning Climate Inventory (1976)	1,2,3**	K-12	Teachers	1	1	20	Likert	15 min.
Organizational Climate Description Questionnaire	1**,2,3	K-12	Teachers Principals	1	1	64	Likert	20 min.
Organizational Climate Index	1,2,3	K-12	All Staff	1	1	300	T/F	40-50 min.
Parent Opinion Inventory (1981)	1,3,4	K-12	Parents	1	1	58	M.C. Open-ended	
School Learning Climate Assess-ment Instrument	2,3**,4	K-12	All Staff	1	1	60	Likert	25 min.

* 1. Relationships
2. Personal Development
3. Systems Maintenance
4. Physical Environment

** Emphasized

Scoring	Norms	Other Interp.	Reliability	Validity	Comments	Availability
Hand, machine	None	None	None	None		Psychological Assessment Resources, Inc., P.O. Box 98, Odessa, FL 33556
Hand, machine	Fair	Some	Good-excellent	Some	A companion instrument is the Elementary and Secondary School Index for grades 4-12. Part of a series of instruments developed by Stern. Hand scoring may be difficult.	Evaluation and Research Associates, P.O. Box 6503, Teall Station, Syracuse, NY 13217
Hand	None	Some	Fair-Good	Some		Climate Research Associates 1308 Tood Trail College Station, TX 77840
Hand, machine	None	Some	Poor	Some	Designed for broad variety of settings, but has been used in the schools.	Andrew Hayes, Dept of Educ Design, U of N. Carolina-Wilmington, 601 S. College Road, Wilmington, NC 28403
Hand	None	None	None	Some	Designed for a broad variety of settings, but has been used in the schools. Part of a series by Stern. Has a short form.	Associates, Inc., P.O. Box 6503, Teall Station, Syracuse, NY 13217
Hand	None	None	Poor-Fair	Some	Marginal in terms of content related to psychosocial climate. Part of a series--POI, SOI, TOI.	National Study of School Evaluation, 5201 Leesburg Pike, Falls Church, VI 22041
Hand	None	Some	None	Some		Urban Affairs Program, Michigan State University, 138 W. Owen Hall, East Langsing, MI 48824

*** Must be dug for in research literature.

SCHOOL ENVIRONMENT INSTRUMENTS

Summary Table of Instrument Characteristics

Instrument	Psycho-social Dimen-sions*	Grades	Who Responds	No. Forms	No. Levels	No. Items	Item Types	Ad Time
School Level Environment (1983) Questionnaire 1	1,2,3,4	K-12	Teachers	1	1	56	Likert	
Student Opinion Inventory (1981)	1**,2	9-12	Students	1	1	34	M.C. open-ended	45 min.
Teacher Opinion Inventory (1981)	1,2,3	K-12	Teachers	1	1	64	M.C. open-ended	
Thinking About My School (1985)	1,2	4-6	Students	1	1	47	Likert	30 min.
Work Environment Scale (1974)	1,2,3	K-12	All staff	1	1	90	T/F	20 min.

Norms (Value judgement implied)

None	No normative information is provided.
Fair	Has some standards of comparison, e.g. means of research sample, decile norms or item statistics.
Good	Has norms based on a good sized sample.
Excellent	Has norms based on a national sample, item statistics, means and standard deviations of normative sample.

Other Interpretation (No value judgement as to the quality of the assistance is implied)

None	No help with interpretation.
Some	Has some help with interpretating scores, e.g. what the various scores mean.
Some+	Has information on what the various scores mean and some help with use in instruction.
Extensive	Has extensive information on what the scores mean and how to use them in instruction.

* 1. Relationships
2. Personal Development
3. Systems Maintenance
4. Physical Environment

** Emphasized

Scoring	Norms	Other Interp.	Reliability	Validity	Comments	Availability
Hand	None	None	Fair-Good	Some		Western Australian Instit. of Technology, Bentley, Western Australia 6102
Hand	None	None	Good-Excellent	Some	Part of a series--POI, SOI, TOI	National Study of School Evaluation (address above)
Hand	None	None	Good-Excellent	Some	Part of a series--POI, SOI, TOI	National Study of School Evaluation, 5201 Leesburg Pike, Falls Church, VI 22041
Hand	None	Some	Good	Some		United Educational Services Inc., P.O. Box 605, East Aurora, NY 14052
Hand	Fair	Some	Fair-Good	Some	Designed for a broad variety of settings, but has been used in the schools.	Press, Inc., 577 College Avenue Palo Alto, CA 94306

Reliability (Value judgement implied)

None provided	No information was found.
Poor	All r's below .70
Fair	At least one reported r is greater than .70
Good	Total r is greater than .85; most subtests have r greater than .75
Excellent	Several kinds reported; total score above .90; most subtest scores above .80

Validity (This describes quantity of information available, not the extent to which the instrument is valid.)

No information	No information on validity is reported.
Some information	At least one activity related to validation is reported.
Some+ information	Validity was examined in several different ways. The relationship of environment (as measured by the instrument) to student outcomes was explored.
Extensive information	There was special effort to ensure that alternative explanations for results wer ruled out and the relationship of environment (as measured by the instrument) to stude outcomes was explored. There is a large research base for the instrument.

*** Must be dug for in research literature.

APPENDIX C

Resources

RESOURCES

American Educational Research Association (AERA) Special Interest Group (SIG)

This group on learning environments is chaired (1986-87) by Barry Fraser, Western Australian Institute of Technology. The SIG meets each year at the AERA annual national convention. The SIG publishes a newsletter, edited by Chad Ellet of Louisiana State University.

Anderson, C. S. (1982). The search for school climate: A review of the research. Review of Educational Research, 52, **368-420.**

This article is an analysis of the school climate literature based on over 200 references. Anderson reviews the history of school climate research, discusses how differences in definition lead to differences in results, and presents various problems when attempting to look at anything as complex as climate. The article discusses some school and classroom climate measurement instruments and summarizes certain school characteristics that appear to be related to student outcomes.

Chavez, R. C. (1984). The use of high inference measures to study classroom climates: A review. Review of Educational Research, 54, **237-261.**

This article reviews the history of measurement of school and classroom climate. Included is a selection of research results using various assessment instruments.

Cognetta, R. A., Malvetti, A. C., & Wilson, C. F. (1985). Measuring school climate. **Sacramento, CA: California Evaluation Improvement Project.**

This school climate evaluation guide provides a process by which personnel can develop their own instrument to measure school climate. This publication is an instructional instrument in the form of a workbook designed to assist educators in planning and monitoring the procedures, techniques, and methods necessary for an effective school climate evaluation. Included are sample instruments. These instruments are accompanied by answer sheets and scoring guides, but are presented without evidence of reliability or validity. A copy of this publication can be obtained from the California State Department of Education, Bill Honig, Superintendent of Public Instruction, Sacramento, California.

Fox, R., Luszki, M. B. & Schmuck, R. (1966). Diagnosing classroom learning environments. **Chicago, IL: Science Research Associates, Inc.**

Although published 20 years ago, this little monograph has some useful ideas on various ways to assess classroom environments. Included are a variety of paper and pencil and observation instruments and procedures which can be used to assess social relations in the classroom, peer-group expectations, pupil-teacher interaction, outside influences on classroom learning, parental influences, and student self-concept. Although no theoretical rationale or technical information is presented on any of these procedures, the authors spend a good deal of time discussing how they can be used in the classroom (including case studies of use). There are no arguments, except intuition, that suggestions for improvement suggested in the monograph actually affect student affective and cognitive outcomes.

Fox, R. S., Schmuck, R., Van Egmond, E., Ritvo, M. & Jung, C. (1973). Diagnosing professional climate of schools. Fairfax, VA: NTL Learning Resources Corp, Inc.

This appears to be the school climate counterpart to the resource described above. There are three types of instruments presented--perceptions that school personnel hold about their own role responsibilities, perceptions of and reactions to the responsibilities of others, and group functions performed by staff members. The authors claim that all the instruments were "carefully developed in collaboration with social scientists and with members of school faculties" (p. 26). None of this information is provided in the monograph. Again, there is a lot of detail on the use of the instruments presented, including case studies of use.

Fraser, B. J. (Ed.). (1986a). The study of learning environments. Salem, OR: Assessment Research.

This publication is sponsored by an American Educational Research Association (AERA) Special Interest Group on learning environments. It contains eight papers presented at the 1985 annual meeting of AERA. Articles include a review of current assessment tools, a review of current research in the area, and reports of individual studies. The publication can be obtained from Assessment Research, 142 Glynbrook Street N., Suite 207, Salem, Oregon 97303.

Fraser, B.J. (1986). Classroom environment. Dover, NH: Croom Helm.

The author reviews several major educational climate measures in detail and presents short descriptions of many others. He also summarizes current research findings on the relationship between climate and outcomes, the degree to which the match between individual climate preferences and actual climate affects outcomes, and how climates vary between settings. These summaries of current research findings are tied to individual instruments and can be used to interpret and use the results of school self-study.

Gottfredson, D. C., Hybl, L. G., Gottfredson, G. D., & Castendea, R. P. (1986). School climate assessment instruments: A review. The Johns Hopkins University, Center for Social Organization of Schools. (Also a paper presented at the annual meeting of the American Educational Research Association, 1986.)

The authors reviewed 70 school effectiveness instruments from 22 school improvement projects around the country. The authors present reviews of 20 of the best instruments (in terms of sound psychometric development). The instruments are mostly surveys but do include some interviews. All grade levels are covered. In these reviews climate was broadly defined to include all school characteristics associated with the effective schools literature. Some components of these instruments would, however, also fall into narrower, psychosocial definitions of climate. The instruments come mainly from school districts and state departments of education.

Guzetti, B. J. (1983). Report on instruments for measuring school effectiveness. Aurora, CO: Mid-Continential Regional Educational Laboratory. Also ERIC No. ED 253578.

The author reviews 24 instruments for examining school effectiveness. Some of these include sections on school climate. Many include individual aspects that are also sometimes included on climate instruments, e.g., "safe and orderly environment," "high expectations for student achievement," "automony in planning instruction," "adequacy of resources," and "collegiality."

CURRENT INSTRUMENT DEVELOPMENT ACTIVITIES

Angulo, Luis M. Villar, University of Seville, has translated the CES, MCI, LEI, and ICEQ into Spanish and applied them to educational environments in Sevillian secondary and technical school classrooms.

Barclay, James, is developing a revised scale that can spot early (K-2) at-risk kids. It identifies neglected and rejected children.

Steele, Joe, ACT-COMP, has designed an experimental college version of his CAQ that measures the same six cognitive levels as the original instrument.

APPENDIX D

Checklist for Selecting a Measure of Educational Climate

Checklist for Selecting a Measure of Educational Climate

I. Usefulness

A. Information Obtained

1. Do the stated uses of the instrument match up with what you want to use the information for?
2. Does the instrument or method measure the dimensions of educational climate on which you want information?
3. Does the instrument permit you to gather information from all those from whom information needs to be collected (e.g. students, teachers, administrators, parents, community)?
4. Are standards of comparison (such as norms or other statements of what a good climate should be like) available?
5. Is there information about how to use the results to improve climate?

B. Logistics

1. Is the instrument or method easy to use?
2. Is it easy to score and interpret the results?
3. Is the length of time required to collect information acceptable?

C. Cost

1. Are costs within available resources? (Include costs of obtaining the instrument or method, training data collectors and collecting data.)

II. Technical Adequacy

A. Theoretical Basis

1. Do the supporting materials for the instrument or method present a clear definition of the aspects of educational climate that it measures? Does the test manual discuss how this definition was developed and why the test has the content it has? Is evidence provided (based on research or theory) that the definition(s) and test content are reasonable?

B. Reliability

1. Was the instrument pilot tested?
2. Is there some measure of reliability available for the instrument? For a survey this includes at least item discriminations, internal consistency and test-retest reliabilities; for an observation or interview this would include interrater reliability. Reliabilities should be presented for all uses recommended by the author(s). For example, if the instrument is to be used to examine both individual students and groups of students then reliabilities for individuals and groups should be included. If the instrument can be used by students, teachers, and classroom observers, then reliabilities for each of these groups should be present.

If the results are going to be used to make important (and hard to reverse) decisions about individual students, reliability should be above .90. For group uses, or for educational decisions that are easily reversible, reliabilities should be above .75.

C. Validity

Is there evidence that the instrument measures what it claims to measure? Validity is in the relationship between the instrument and its use. There should be evidence that the instrument can be validly used for the purposes stated.

1. For paper and pencil instruments of the type reviewed here, an ideal set of validity studies would include:

   a. The respondent understands what is being asked. Vocabulary or concepts unfamiliar to a group would make the instrument unusable for that group.

   b. Respondents report their true feelings and do not alter their responses according to what others are responding or according to what they feel would be the most socially desirable response.

   c. There are an equal number of positively and negatively worded questions so that a respondent doesn't get into a response set of answering the same way each time.

   d. There is evidence that the reported perception is not merely a reflection of the person's personal characteristics--that is, some part of statements of climate are separate from the background characteristics of respondents.

   e. Groups that should be different in their ratings are indeed different. This could include the ability of an instrument to differentiate between classes or schools in terms of climate or student outcomes.

   f. The instrument measures changes or differences in climate after training designed to change climate.

   g. The instrument correlates with other measures of the same dimension and does not correlate with measures purporting to measure something different.

   h. It is the opinion of knowledgeable judges that the instrument measures climate.

2. In addition, if the instrument purports to measure aspects of climate that can be changed to affect achievement, then the instrument needs:

   a. Evidence that there is a relationship between scores on the instrument and student outcomes (achievement or affective).

   b. Evidence that systematic changes in climate produce systematic changes in outcomes.

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The Test Center

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